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ABSTRACT

In order to analyze teacher education in East Africa, the three-man survey team studied schools and agencies producing teachers and programs for schools, focusing on four factors: preservice and inservice teacher education, production and improvement of instructional materials, and financing of programs. The team examined the specific primary and auxiliary agencies engaged in primary, secondary, and teacher education and consulted appropriate persons inside and outside these agencies. The problems identified fall into these categories: shortage of qualified teachers, tutors, and specialists in the areas of research and production of instructional materials; need for improvement of leadership at many levels; inadequate local financing; and need for firm goals and policy on expansion of primary and secondary education in two of the three countries. Requirements for meeting these needs and obstacles which have blocked or retarded implementation efforts were analyzed. (Specific suggestions for Agency for International Development (AID) assistance and broad cost implications are included in the report's six sections: Primary and Secondary School Education, Teacher Education Programs, Curriculum Development and Instructional Materials, Staffing Teachers Colleges, Resources Available and Projected Requirements, and Priorities in Teacher Education. Survey team itinerary in the U.S., Kenya, Uganda, and Tanzania is appended.) (JS)

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ANALYSIS OF TEACHER EDUCATION
IN
EAST AFRICA
1969

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AMERICAN ASSOCIATION OF COLLEGES FOR
TEACHER EDUCATION TEAM

FOR

AGENCY FOR INTERNATIONAL DEVELOPMENT

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A Report

ANALYSIS OF TEACHER EDUCATION
in
EAST AFRICA

1969

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THE AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION

by

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ANALYSIS OF TEACHER EDUCATION

in

EAST AFRICA

Section 1

OVERVIEW

In order to analyze teacher education in East Africa, the Survey Team (hereinafter referred to as "the Team") studied the schools and the agencies producing teachers and programs for the schools. The goal of teacher education is assumed to be an adequate quantity and quality of instruction. Factors in achievement of the goal are: (1) pre-service teacher education, (2) inservice teacher education, (3) production and improvement of instructional materials, and (4) financing the programs.

The Team examined the specific agencies engaged in primary, secondary and teacher education: (1) Ministries of Education, (2) primary and secondary schools, (3) teachers colleges, (4) University College Faculties of Education, and (5) Institutes of Education. Some auxilliary agencies such as externally supported projects, teachers unions and Ministries of Finance were added. Finally many appropriate persons* both inside and outside of these agencies were consulted.

The problems identified fall into six major categories:

1. Shortage of qualified teachers
2. Shortage of qualified tutors
3. Shortage of qualified specialists in the areas of
    a. Research into the personal and social development of African children
    b. Production of instructional materials, including textbooks
4. Need for improvement of leadership at many levels

    Leadership which is much more flexible is essential to encourage teachers college faculties to maximize in consort their individual strengths and to pool the imagination for curriculum and instructional techniques improvement. Instructional improvements are necessary to develop programs of teacher education which will result in liberalizing classroom skills for utilizing the wider learning potentials possessed by the children. This improvement is needed equally by school headmasters. Improvement in some specific leadership techniques, such as group dynamics, is needed in many additional places as well.

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*See Appendixes B-E for complete list.

5. Local financing is inadequate for inaugurating and adequately expanding current plans and programs for solving these problems.
6. Firm goals and policy on expansion of primary and secondary education exist in only one of the three countries, thus rendering planning tenuous in the other two.

The Team states these general problems more specifically as follows:

1. There is a severe shortage of adequately qualified primary teachers.

   Assumptions:

   a. Ultimately, teachers should have a secondary education as the desirable minimal background.
   b. There are a number of unqualified teachers.
   c. There is a large inservice education problem.

2. There is a shortage of adequately qualified secondary teachers.

   Assumptions:

   a. Localization of staff is desirable.

   b. Higher School Certificate is the desirable minimum background for the lower forms and graduate is minimal for forms 3-6 (particularly 5-6).

3. There is a severe shortage of qualified tutors in the teachers colleges.

   Assumptions:

   a. Localization of staff is desirable.

   b. Higher School Certificate is the desirable minimum background for primary teachers college tutors and graduate with B.E. for secondary teachers college tutors.

   c. Preparation in depth in one or more areas of professional education.

4. There is a severe shortage of qualified professional personnel in the Institutes of Education and on the Faculties of Education.

   Assumptions:

   a. These persons (1) upgrade teachers in subject methods, (2) assume leadership in preparation of curriculum materials, and (3) conduct research in educational psychology, child development, and measurement and evaluation of relevance to African pupils.

   b. For these professionals, pertinent study with master's degree is minimal except in the research category where the doctorate is minimal.

c. Localization of staff is desirable--essential for educational psychology and child development research.

5. Acceleration in production of qualified personnel is needed and is now possible.

Assumptions:

a. One major impediment to the filling of this shortage described above has been the inadequate number of secondary school graduates. The day of adequacy has arrived--for example, it is estimated that in the next five years, four out of five Kenya secondary school graduates will not find positions in the private sector of the economy; consequently, quality and availability conditions will change. Therefore, in the interests of promoting a higher degree of self-sufficiency, the Team recommends for the next decade that AID strengthen their goal of aiding in the preparation of local professionals at the level wherein the countries, themselves, can soon educate and provide their own teachers. Motivation to move in this direction can be achieved best by providing technical assistance only of selected professionals who are always associated with counterparts, either in training overseas or locally, to replace the U.S.A. temporary personnel. Focus should change to production of classroom tutors from providing classroom tutors.

b. Inservice as well as pre-service training can be provided by such professionals.

6. There is a severe shortage of instructional materials in the schools and the colleges.
7. There are many minor program assistance and improvement needs, such as, study of innovations, establishment of primary education departments at the University Colleges, and teacher education program diversification and remodelling for which the U.S.A. is peculiarly well qualified to assist.

In order to meet these needs, it is essential that the educational leadership of the country (1) be aware of them, (2) plan and be capable both of breaking these plans into component programs as well as implementing them (3) be sensitive to the need for building toward self-reliance in meeting these needs, and (4) prepare to execute plans rapidly enough to avoid regression.

The Team feels, after many conferences with Ministry leaders in teacher education and leaders in the agencies charged with appropriate program planning, development and maintenance, that:

1. These men are well aware of their problems
2. In some cases they have already planned and are implementing plans for meeting their problems
3. They are sensitive to their self-reliance needs, and
4. They frequently plan and hope to move fast enough to avoid regression. Additionally,
5. They are willing to discuss openly the weaknesses in their programs, and
6. They will listen carefully to and debate new ideas.

However, four major obstacles have blocked or retarded their implementation efforts: (1) Experience and tradition have sometimes limited their capacity to move from theory and philosophy to the performance level of implementation, (2) personnel of a quality adequate for high level professional training have not been available from the limited educational pipeline, (3) local finances are too limited, and (4) the change of pace in the University Colleges, because of their traditional approach, creates a lag to the extent of causing regression.

The foregoing provides an overview of the scope of the study. Priorities and assistance potentials have been revealed in this brief discussion of teacher education. More specific suggestions for AID assistance appears in separate sequential sections which will include appropriate background data against which the potentials will be laid. In another section, there will be presented a study and projection of staff needs at primary, secondary and teacher education levels, including broad indications of cost implications.

Section 2

PRIMARY AND SECONDARY SCHOOL EDUCATION

At independence, Kenya (1963), Uganda (1962) and Tanzania (1961) inherited school systems patterned after a British model, designed to produce professionals and managers for an earlier industrial society. Most schools were started and supported by European missionary societies who also staffed them with their nationals.

Generally, the school systems in the three countries are now organized into seven years primary education, four years junior secondary and 2 years senior secondary. University degree programs typically take 3 years.

Curricula before independence were narrowly academic and contained little African content. Instruction emphasized lectures by the instructors and memorization by students. Primary school curriculum still includes eight areas taught generally as discrete subjects. By the fourth year of secondary school the field of study for students narrows to two or three subjects with specialization in the arts or the sciences. Generally more students study in the arts area than in the science area.

English typically is introduced as a subject in the first three grades of primary school and is the language of instruction in all secondary schools. Uganda seems to stress the early introduction of English more than Kenya. Tanzania is moving toward Swahili as the language of instruction in all grades.

An examination system applied at nearly all levels enforced standards and served as screening devices for entry to higher levels of schooling. Examinations at the end of primary school Standard VII and Forms 4 and 6 of secondary school were, and still are, crucial.

Popular Demand for Education

Even though the inherited educational system was obsolete, it was the way people could move into positions of prestige. Education was and is seen as the way all of society can be improved. A great demand for education by the people began to expand enrollments at all levels. Universal primary education was a promise made by political parties. In Kenya and Uganda no target date has been established for universal primary education. In Tanzania, 1989 is the date specified. The African governments began to spend large per cents of their budgets for education. Estimates of per cent of national budget are Kenya 29%, Uganda 26% and Tanzania 20%.

Popular demand for elementary education is counterbalanced by a need to expand secondary and higher education to supply middle and high level manpower requirements both in the private and public sectors. Specifically, secondary and higher education are the sources of teachers for the schools.

Future expansion of school systems will be conditioned by a number of factors. Included are these:

1. Economic development of the countries which sets the amount of money available to the government.
2. Continuing or changing per cent of the budgets which are allocated to education.
3. Decisions regarding source of support for education including the share local governments should contribute to education

and the fees parents of students might be asked to pay, particularly at secondary and higher levels.

4. Decisions to slow down expansion to (1) improve the quality of teachers, (2) increase the allotments for practical education or (3) increase allocations for instructional materials.
5. Decisions regarding (1) support of students with stipends or loans; and (2) housing for students and staff.

Toward More Relevant Education

Independence also caused the people of the three countries to demand educational programs which are more relevant to national aims and aspirations. Leaders, particularly those concerned with education, began to specify the desired changes as:

1. Emphasis on African history, culture, ecology and economic, political and social institutions and philosophies.
2. Broadening education by adding manual and agricultural arts subjects or content to the general curriculum. Increasing the attention given to physical education, art, music and other cultural activities. Integration of related subjects to make education more general and less specialized.
3. Encouragement of individual self-reliance through problem solving and inquiry oriented methods of instruction.
4. Improved relationship between school and community to increase the congruence of formal education and community life, and to develop students' sense of responsibility to their communities.
5. Adoption of an examination system which reflects not directs the curriculum.

Each of the three countries is approaching these changes in its own way. At present Tanzania has a clearly defined program which is actively followed. Uganda proposes to form an Educational Policies Commission composed of educational leaders, influential persons from other agencies of government and prominent persons in private business. This commission will try to formulate general goals for the country's school system. Some unifying platform or coordinating group for education in Kenya was not evident to the Team.

After numerous conferences and some observation, this Survey Team feels that in Kenya and Uganda changes have been made to "localize" curricula and to increase inquiry approaches to learning in science and maths. There are many indications that the New Primary Approach project in the two countries will have an increasing impact on the early primary methods and standards. There does not seem to be much broadening of the curriculum or increase in school-community relations. Improvement efforts now seem directed generally toward doing better what they already are doing.

However, the teaching changes in Tanzania (described below) lead to a conclusion that all three countries hope to achieve a greater emphasis on individualized and self education. In this regard, the Team underscores the necessity for a substantial input of relevant instructional material--textbooks and other--for basic and reference needs in both the primary schools and teachers colleges.

In Tanzania educational changes are considerable and go beyond the five numbered statements above. There, the concept of self-reliance is an active-directive force in education. The spirit is nationalistic and revolutionary. Philosophically it is directed toward a cooperative, participatory society.

Political education has been added as a school subject and important activity. Students are expected to carry out community improvement activities. Also, at this time, success in school seems more related to students demonstration of their understanding and commitment to the political and social philosophy of the country than to academic achievement.

In one attempt to broaden the curriculum, the Tanzanian Ministry of National Education proposes that selected secondary schools add either agricultural, technical or commercial "biases" to their programs.

For both political and educational reasons, the three governments formed the East African Examinations Council in late 1967. It was established primarily to take over from the Cambridge Syndicate the important external examinations at the Form 4 and 6 levels. Committees composed of representatives of all three countries are preparing examinations in the several subject areas which reflect syllabuses which have been approved by the Ministries of Education in the three countries.

The interest shown in all three countries in curriculum development leads to several implications for teacher education:

1. Teachers colleges and the Faculties of Education in the university colleges, particularly in Tanzania, are seen as the key agencies for long-range improvement in education.
2. Tutors from teachers colleges are members of all subject syllabus panels.
3. They also staff many of the inservice up-grading and refresher courses.

Localization of School Staffs

Governments of the three countries have moved toward replacing expatriates with citizens at all levels of the educational systems.

Localization of staff was established as a policy to achieve more staff stability and to have teachers who know and understand the society to which they belong and serve.

The intent to completely staff the schools with local teachers places a heavy responsibility on teacher education departments. If current practices continue, the teachers colleges will have to provide for the following categories of need.

1. Attrition of teachers and the "loss" of those trained as teachers who become teachers in private unaided schools; and the "loss" of those trained as teachers who leave educations for other employment
2. Replacement of expatriates
3. Expansion of aided schools

In Uganda this "loss" is considered to be substantial. It is somewhat less in Kenya. Tanzania seems to have little "loss" of teachers.

It is felt that Uganda and Kenya will have to depend on expatriate assistance for some time to come, particularly in secondary schools. Tanzania's forecasts indicate that by 1974, 85% of the secondary school teachers will be Tanzanian.

Since independence, there has actually been considerable turnover of personnel in the schools of all three countries. The localization of staffs in both private sector and government was accomplished largely at the expense of the teaching profession.

The departure of expatriates from administrative positions within the ministry and as headmasters and headmistresses has meant that relatively young and inexperienced persons have moved into positions of leadership. Because of the complex problems and programs for expansion, upgrading and improving education which lie ahead, some outside assistance to these leaders may be helpful and feasible.

Section 3

TEACHER EDUCATION PROGRAMS

Pre-Service: Primary

Teacher education is the responsibility of the Ministries of Education. An education officer, carrying an appropriate teacher education title serves under a chief education officer in the Ministry as the official primarily responsible for programs and staffing of the teachers colleges where virtually all of the pre-service and much of the inservice teacher education is accomplished.

Primary pre-service teacher education in East Africa is conducted in programs at two entry levels: completion of primary school and completion of secondary school. These programs are described herein. There are sixty-eight primary teacher training colleges (Kenya 26, Uganda 25, Tanzania 17). In some of these colleges both programs are offered. Next year, Tanzania will add programs, for students who have completed primary school, to some of their colleges for secondary school graduates. The reason lies in the demands of their new universal primary education goals.

The teachers college programs for those who have finished primary school are two years in Tanzania, three years in Kenya and four years in Uganda. To meet requirements under their goal of universal primary education by 1989, Tanzania has just added a two year teacher training program (Grade D) for students who have finished primary school and their period of national service. In the first year students will be in the classroom. This year is followed by a one year supervised internship.

The colleges for those who finished primary school must provide instruction based on an approved syllabus and they must offer the courses listed in that syllabus. Some of the colleges offer some additional courses. The program in most colleges includes English and Swahili, which are given the greatest emphasis, arithmetic, history, natural science, general science, health education, education (principles), school organization, arts or arts and crafts, singing, physical education, single lesson teaching practice and block teaching practice. Some colleges offer: African studies, child study, current affairs, geography, domestic science, visual education, religion, language arts, religious knowledge, blackboard, music theory, civics and first aid. There are usually separate methods courses for English, Swahili, arithmetic, history, science, hygiene, arts and crafts and geography. Methods are included with subject matter in most of the others.

Local language replaces Swahili at some of the colleges, especially in Uganda. Additionally, National Education is a new subject in the Tanzania colleges. It involves an attempt to have students study and practice the principles of Ujamaa (sharing and cooperating) with ultimate emphasis on achieving self-reliance in the country. The program in practical aspects includes course work in the study of socialism with several of President Nyereri's publications as texts (Ujamaa: Essays on Socialism; Freedom and Unity; Freedom and Socialism; Freedom and Development; The Arusha Declaration) and some TANU publications. The program includes community improvement and farming activities as well as "clean-up" responsibilities on the campuses, extensive physical drill and TANU Youth activities plus periods of military drill. These activities and course work are scheduled typically for approximately two hours a day. Furthermore, syllabuses in appropriate subjects such as social studies are being modified to incorporate the national philosophy and national goal of self-reliance.

The contents of all courses, for the most part, is the content to be covered in the primary schools.

In number of single lesson teaching practice sessions the colleges vary with anywhere from one to four per week. Virtually all have three or four block teaching practice sessions, one or two in the first year, with one frequently coming at the end of the first four to six weeks, and with external moderation (inspection, observation and grading) of some students at the end of the two or three years usually by a combination of visitors such as a teachers college principal, the local regional education officer and a visiting tutor or a regional supervisor. Since only part of the students, deliberately selected from top, average and borderline groupings, are moderated and since it is most uncommon for a student to fail, the external moderation actually is an evaluation of the teachers college rather than of the student.

The total program is offered on a timetable which runs to anywhere from 34 to 42 periods a week. This is a heavy schedule and there are seldom any study periods in it. Library work and study must be achieved in the evenings and on Saturday afternoons because many colleges have a Saturday A.M. schedule.

There is little time for special clubs, although some exist. There is, usually, also a small recreation program and, sometimes, an athletic program. The students usually are required to keep their own dormitories and rooms clean. A few colleges require the students to keep the whole college clean.

The colleges for secondary school graduates follow closely their syllabus as to required subjects. Some colleges offer additional courses for depth in some academic fields. Some offer additional fine arts, crafts, music and similar courses of either a practical nature or a humanizing purpose. Some colleges are charged with responsibility for special biases such as domestic science, agriculture and industrial arts.

In general, the relative emphasis on basic courses is the same as in the colleges for the younger students with only a primary school background; however, the older students with secondary school backgrounds go deeper into most subjects and require some intensive individual study. The class periods in most colleges for secondary school graduates are one hour instead of 40 or 45 minutes as in the colleges for the younger students. The total class time per week in the colleges for the secondary graduates will average approximately three hours more than for the younger students.

The single lesson teaching practice is a well-established part of both programs. The secondary graduates have fewer block teaching practice sessions, however, with some having three while others have only two. The teaching practice moderation program is similar to that for the younger students.

More clubs and stronger self-government organizations exist in the colleges for secondary school graduates. Recreation programs and athletics seem to be more common, although at one college the students complained of "no social life".

Inspection of the education syllabus and course outlines at one college for the older students revealed a substantial coverage of materials in educational psychology, school organization, and principles of education. In education, an individual project covering selection of a problem and including a full year's work on it was a common requirement. Inspection of these papers for one such class revealed a high quality of study and reporting. The value of the exercise could not be questioned. Ten of the topics from which students could choose were: subject popularity in school, our national culture, comparative child study, reward and punishment in school, activity methods in learning, sociometric study, environment and school success, reading interests study, hobbies, games and sports in my country, and education and religious belief. A few lines of explanation under each title were provided as guidelines for the student as he studied the list to select his project title.

It is evident that the status of primary teacher education and tutor status is distinctly below that of secondary school teaching everywhere in East Africa. A variety of factors contribute to this and, in the end, the whole education system suffers. Listed here are weaknesses of teacher education discovered by the Team through observation on its tour, by assertion from many of the persons visited, by studying the literative of appropriate conference reports, and in public assertions by professional and government personnel.

1. Instability of the teachers college staff
    a. Expatriates coming and going
    b. Re-posting of locals frequently and even during a term
    c. Voluntary moves because of low pay scale or chance to move into secondary school teaching
2. Generally inadequate library facilities and budgets as well as for other materials and equipment (frequently only five shillings per student per annum)
3. Negative student attitude toward preparation for the profession
4. Understaffing--Team discovered only one out of fourteen teachers colleges visited without staff vacancies - in one case as many as six (20%)
5. Instructors assigned to fields in which unprepared
6. Inability to cope with declared changes in philosophy, i e., experience, frequently only with traditional academic preparation for examination, no freedom of movement, no flexibility with emphasis on the problem solving or creativity of learning, concepts of guidance as opposed to "yell and tell"
7. Inability to cope with the philosophy of students questioning teachers college staff either about campus life or subject matter
8. Inability of teachers college leadership to capitalize on faculty-team action to solving their new philosophy or New Primary Approach. Agreement with the New Primary Approach but inability to move the teachers college faculty toward achieving it in their own teaching

9. Lack of admission tests which might aid administration in student selection on some personality as well as academic factors.
10. Inadequate number of staff nationals with academic degrees
11. Upgrading of teachers college staffs too slow
12. Instability of administrative staff
13. Curriculum is too fragmented--too many subjects concurrently and in short, 40-minute periods. Could be scheduled differently to advantage.
14. Feedback on graduated students is usually indirect through the ministry--direct would be better.
15. English is difficult for both the ex-primaries and many of the non-degree teachers college faculty. English should be continued as a second language study in the teachers college curriculum for secondary school graduates.
16. Inadequate basic research in African child growth and development, learning motivations and teaching method.

Pre-Service: Trends and Proposals for Change, Primary

Substantial interest with varying degree of commitment and observable action in all three countries was identified on the following conditions and goals in teacher education:

1. Ultimately a very high percentage of baccalaureate and master's degree holders on teachers college staffs is desirable.

2. Larger teachers colleges will facilitate program improvement.
3. Leadership improvement in the teachers colleges at the levels of Principal, Program (Curriculum) Revision Director, Department Chairman is desirable.
4. There must be a breakaway from external examinations.
5. Teachers college staffs must be localized.
6. The introduction of flexible, creative, activity and problem solving methods must be developed, employed and taught in the teachers colleges.
7. Amount of instructional materials of all types must be greatly extended and increased.
8. Innovations are welcome and must be sought and tried for potential adoption, e.g., new math, new science, micro teaching, interaction analysis, non-verbal communication, simulation.
9. Introduction of changes must be achieved with modest initial investment and with obligation for no more than small additional recurrent costs.

Country by country, substantial forward thinking, planning and possible action on the improvement of teacher education were in evidence either in the exchange of ideas or in printed materials prepared by professional educators and/or politicians.

Pre-Service: Kenya, Primary

In May 1968 an important conference on teacher education was held in Kenya. Involved were such leading educators from Kenya as tutors and principals of teachers colleges, Ministry of Education officers and staff, guest speakers from England, Nigeria, the U.S.A. as well as several local leaders, delegates from the Kenya Institute of Education and the University of East Africa, delegates of the religious education association, the Kenya National Union of Teachers, the Ministry of Planning, observers from donor agencies, district and regional education officers and many staff members from the University College and teachers colleges in the Nairobi area. The official publication* of (1) reports of the four committees which had been working for two years and (2) the formal addresses of the conference provide a clear statement of goals in Kenya for the improvement of teacher education. This report is considered by many to be the blueprint for study, decision, experimentation and possible action in the next decade.

All of the specific recommendations in this publication are valuable in any study of teacher education in Kenya; however, the Team has found the following ideas, abstracted from the various committee recommendations, most pertinent to this report:

1. The child should be the center of education.
2. Teaching methods in the teachers colleges should be the same as those taught and expected of the students later.
3. Reference materials are vital for quality teaching.
4. There should be more grouping of subjects, such as in the social studies.

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*Kenya Institute of Education, New Directions in Teacher Education. Nairobi East African Publishing House, 1969, 141 pages.

5. Students should be encouraged to develop their special interests.
6. There should be more emphasis on the creative arts, domestic science, physical education, etc., in comparison with the academic subjects.
7. The colleges should be responsible to the Institute of Education in their programming.
8. Examination emphasis should give way to continuous assessment of the student's work.
9. The teachers colleges should be larger.
10. Ultimately, college tutors should be university graduates or equivalent.
11. Localization of staff should be accelerated.
12. Principals should have outstanding leadership qualities as well as good academic records.
13. A more favorable salary schedule for tutors should be provided.
14. Greater stability in Principalships is necessary for college program improvement.
15. Greater staff stability is needed - advance notice of re-posting should be given.
16. Tutors should have at least three years previous primary teaching experience.
17. Ultimately, all primary teachers should be ex-secondaries.
18. Evaluation for certification should ultimately be in the hands of the University College.

19. Greater college student independence and self-government is desirable.

Pre-Service: Uganda, Primary

In Uganda the same enthusiasm as in Kenya for change to a flexible action and creative approach was evident. However, there is not yet a published statement of goals and steps as are found in New Directions. Promising trends and change proposals for Uganda are listed in the following:

1. Consolidation and enlarging of the teachers colleges (USAID Project)
2. Training in U.S.A. of thirty-two teachers college tutors including some department chairman (USAID Project Proposal)
3. Providing two external principals (U.S.A.) for the opening years of the two teachers colleges (USAID Proposal)
4. Training of Principals for the two new teachers colleges (USAID Project Proposal)
5. Providing sixteen external (U.S.A.) tutors for the two new teachers colleges for four years (USAID Proposal)
6. Providing of some external department head (leadership) personnel among the sixteen tutors (USAID Proposal)
7. Research Fellowship for the Institute (Nuffield Foundation)
8. Inauguration of Teaching Materials and Documentation Center (Nuffield Foundation)

9. Providing Instructional Materials specialist for East Africa (Teachers College Columbia University/Teacher Education East Africa/USAID Project)
10. Audio-Visual Center Director and Specialist at the Institute (Carnegie)
11. Librarian - Documentation Center (Topping by Overseas Educational Services)
12. Assistant Librarian (Peace Corps)
13. Establishment of a lending Film Library at the Center (Seeking Donor)
14. Biology Specialist for University College Faculty (UNESCO)

Persons in all of the above work primarily with primary teachers and with teachers college tutors in program,syllabus and instructional materials improvement. Most of the professional staff is external and, therefore, not generally permanent. Unless information is lacking, there are apparently but few positions among these for which Ugandans are being trained as successors to the external personnel. In the new teachers college program proposal about to be implemented, more emphasis is to be placed on creative and activity subjects in the curriculum. However, there is no modification of the time-tabling in the new teachers colleges which would demonstrate an effort to break away from serious program fragmentation in the multiple and continuous subject scheduling through both years on very short and irregularly scheduled 40-minute periods. Longer periods and shorter courses in the new colleges would no doubt be worthy of experimentation. Furthermore an excellent opportunity presents itself for research by scheduling the two new colleges in contrasting patterns.

Some additional trends and proposals for change in Uganda are:

15. Further consolidation of the teachers colleges into only four large ones.
16. Officials favor sending some tutors to the U.S.A. for upgrading.
17. Although unmentionable three year ago, "bonding" of students may become politically possible soon.
18. Possible establishment of a broadly representative Education Policies Council for Uganda. This body would be charged with listening, debating, and deciding on recommendations to government for direction and goals of education at its various levels in Uganda.
19. Intent of the Institute to seek external assistance for a regional research program in
    a. Child growth and development, also for local programs in
    b. Measurement and evaluation--especially testing and identification of secondary student special abilities (vocational or academic), and
    c. Development of self-evaluation criteria for school and college libraries.

Pre-Service: Tanzania, Primary

Discussions in Tanzania led to the formulation of the following list of trends and change proposals for teacher education in Tanzania:

1. Introduction of a new philosophy of education--Education for Self-Reliance
2. Retraining of teachers for the new approach and new syllabuses in appropriate national education coursework and activities (UNICEF printing and massive teacher retraining project)
3. Achieve Universal Primary Education by 1989
4. Staffing plan for primary school:

   Utilize the teachers with secondary school backgrounds for Standards 5-7

   Utilize the teachers with only primary school backgrounds for Standards 1-4
5. Grade D pattern: One year of training for some of those completing primary school and National Service, then they take a classroom assignment as a "Teacher-student". No more than 10 will be assigned to a district. They will have special attention from curriculum coordinators, district inspectors (one primary inspector to each district under the new decentralization of inspectorate plans) and their headmasters.
6. Expand enrollments in the teachers colleges

   (Including the extension of 2 primary teachers colleges by 730 students under an I.D.A. loan--outlined in the USAID project proposal for adding an agriculture bias in the secondary schools)

7. Increase the number of teachers colleges next year to 21 (now 17)
8. Reduce external assistance as rapidly as possible. When it is essential, attempt shall be made to spread the base among donors.
9. Localize teaching personnel as rapidly as possible.
10. Decentralization of the inspectorate to district level and change approach to "supervision".
11. Institute will have specialists in various primary and secondary school subjects. One subject coordinator for each subject in each district will be appointed in the secondary schools. Different teachers colleges will be assigned different subject coordination responsibilities. This structure provides the production responsibilities for implementation of subject panel decisions.
12. Evaluation of education by a blue ribbon commission.
13. Need for Tanzanian researchers trained in depth (through doctorate) for research in (1) child growth and development, (2) educational measurement and evaluation, and (3) educational research design and methodology.
14. New Tanzanian tutors need special training. Could be trained abroad.
15. Inaugurate program for industrial arts teachers at Dar es Salaam and Iringa teachers colleges.

16. Introduce an agriculture bias in several secondary schools and an agriculture subject in primary schools. Provide facilities and personnel, including that for teacher education, with concurrent training of Tanzanian take-over personnel.
17. Inaugurate teacher training program for technical education at the Technical College. Plans are already being formulated.
18. Introduce educational administration course in the University College B.E. program.
19. Introduce some leadership and administration courses for headmasters, principals and supervisors (courses presently taught by university personnel). Consultation on this matter is presently underway with the Institute for the Study of Education at the University of Ontario.

Pre-Service: Secondary

The preparation of secondary teachers in East Africa is the responsibility of the University Colleges and a limited number of special Teachers Colleges (two in Kenya, one each in Uganda and Tanzania). In the University Colleges there are two programs through which one may qualify for secondary school teaching: (1) the Bachelor of Education degree program in which one takes the professional coursework and teaching practice concurrently with his academic work and (2) the diploma course in which he receives the Bachelor of Arts degree and then takes an extra year for a Diploma in Education.

A variety of programs are given in the special teachers colleges but the Kenyatta College in Kenya awards a Bachelor of Education degree for one of its programs. These special colleges, in general, require at least three years after secondary school and one or two years after Higher School Certificate for the Diploma in Education. University College education graduates are called "graduates". Diploma in Education students, unless their programs followed the B.A., are called "Non-graduates".

Admission to the University College requires satisfactory passes at the A level (after Higher School Certificate course) in accordance with the individual University College's admission standards. There is also the "mature student" admission. These are non-graduate primary or secondary teachers and other citizens who have upgraded themselves by studying individually and passing successfully the Higher School Certificate exams and perhaps having also strong recommendations from their teachers college principals. Additionally some, upon completion of their programs in the secondary teachers colleges have been given special recommendation for admission, e.g. seven out of 41 graduates from Kenya Science Teachers College were admitted to the University College for further academic study.

The University College teacher education program has not been very popular in Kenya and Uganda on a voluntary basis because employment after graduation in the private sector of the economy has been readily available until recently. In both Kenya and Uganda, informants tell us that the market in non-teaching positions is rapidly being saturated. This is also the case in Tanzania. Therefore, the Bachelor of Education program may soon become much more popular. It is estimated that in both Kenya and Uganda the supply of local secondary school teachers will probably balance with demand in the last half of the 1970's. Tanzania, which has bonded its students for teaching and which has allocated half of its University College admissions to teaching, estimates 85% localization of the secondary school staff by 1974.

The "balance" in all three countries will likely still find the supply of qualified science teachers to be inadequate because of (1) insufficient numbers qualified for admission (2) some of those eligible do not enter under government support, and (3) the high failure rate in these subjects--as high as 70% in Tanzania. Additionally, only six per cent of the education students in University College/Uganda are in science.

Information on secondary teacher education programs has come largely from publications and conferences with the three institute directors and from education professors as well as from the teacher education officers in the ministries. These also were the sources of many items in the subsequent list of weaknesses, needs and trends.

The University College programs in all three countries are much the same with Bachelor of Education degree students taking three subjects the first year, then taking two subjects plus professional education in the second and third years. Of course, the graduate diploma course is devoted entirely to professional education.

The programs in the special teachers colleges are quite similar but have some differences from the University College programs and among themselves. Kenyatta Teachers College offers a one-year diploma course for Higher School Certificates which consists of two academic subjects plus English and education. Kyambogo (Uganda) and Dar es Salaam Teachers Colleges offer two-year programs for Higher School Certificate holders. Kenya Science Teachers College requires three years after the Higher School Certificate. Kenyatta offers a three-year course for secondary school "ordinary" passes. Some of these who prove to be exceptional are admitted to a fourth year of study (admission determined after the first year) and, upon successful completion, are awarded the Bachelor of Education degree. Finally, some "specialist" subjects are available at Kenyatta for subject concentrations short of the major subjects (perhaps they could be called "minors"). These are art, music, Swahili, religious education, physical education and home economics.

In the Kenya Science Teachers College, a student takes in the first term (14 weeks) all six subjects on the roster: chemistry, physics, biology, geography, math and industrial arts. In the second term he chooses one of three three-subject combinations. In the third year he chooses one of five two-subject combinations. His professional training program lists educational psychology, school history and administration, subject methods, and teaching practice.

In the Dar es Salaam program, the student in his first year takes three subjects to bring up his passes to "Advanced level". In his second year he does advanced work beyond the Higher School Certificate.

The principal has final approval of the student's choice of subjects. The professional program includes eleven clock hours per week in (1) general methods of teaching, educational psychology and measurement; (2) principles of education and comparative education; special methods (3 subjects, 1 period each); (3) single lesson teaching practice and demonstrations; (4) special skills (reading skills and visual education); (5) elective limited courses: health education and library science; plus (6) teaching practice.

Following is a list of weaknesses in secondary school staffing and programs as collected from discussions with the reading of literature produced by appropriate professionals both inside and outside of the University College Education Faculties.

1. The teacher education program is too highly specialized, being virtually limited to one or two subjects, especially in the Higher School Certificate and Forms 3 and 4
2. Percentage of expatriate faculty is too high
    a. Salary levels affect attractiveness for local graduates
3. Failure of the schools and the University College Departments to localize content as appropriate in most content and professional subjects
4. Too many non-graduate teachers. Output of the secondary teachers colleges is too high in proportion to output of the University Colleges, e.g., soon in Kenya the ratio will be eight to one
5. Loss of education graduates in Kenya and Uganda to the private economy sector. Follow-up studies might be helpful in speculating on solutions

6. Lack of research and experimentation in secondary school programs and teaching
7. Lack of leadership in research among University College education faculty. Needed to inspire and advise leadership in research and experimentation among secondary school teachers.

The above are common to secondary schools and secondary teacher education in all three countries. Additionally, Kenya faces a serious teacher, building, and materials supply problem in the rapid increase of Harambee schools which, in 1969, are half again as numerous as the government maintained and aided schools. Uganda faces a financial problem also in its goal of raising the number of secondary school entrants from 1.5% to 4% of the age group. Tanzania faces the politically warm problem of slowing the expansion of secondary education in order to expand the primary sector.

Pre-Service: Trends and Proposals for Change, Secondary

Some hopeful trends and change proposals for secondary education are:

1. The establishment of the Regional Council for Education. Innovation and experimentation encouragement seems to be one of its first major activities.
2. Recognition by some University College faculty of the need for diversification of the secondary school program. A slow start toward the comprehensive secondary school with hope for some

broad fields approach (social studies) and the acceptance of agriculture and industrial arts in the curriculum.

3. Recognition of the need to experiment with some innovations such as team teaching, micro teaching, simulation.
4. Recognition that the quality teacher is one who possesses knowledge of child, of country, of community as well as subject.
5. Recognition that Education teachers must be able to communicate orally and in writing with assurance and precision in the language of instruction. Kenyatta College has taken the lead in this by requiring English all through its program of studies. Now some University College interest is revealed.
6. Makerere University College has introduced an upgrading program in tutor training for primary teachers through the Bachelors of Education and Diploma in Education. Influence of the primary could have "flexibility" effect on the secondary teacher education sector within the University Colleges.

Teacher Education: Practical Subjects

The areas of technical, vocational, industrial arts, agriculture, and domestic science education are quite small in comparison with the general and academic segments of East African education. Teacher preparation in these areas has largely been ignored because most teaching is still done by expatriates.

Teachers for the larger and more common areas, industrial arts and domestic science, are prepared in teachers colleges alongside the regular programs. For example, Tanzania offers domestic science in three teachers colleges. Morogoro, Ndwika and Ndala upgrade 52 Grade C teachers (ex-primaries) to Grade B (ex-Standard 10's) each year with major emphasis on domestic science. Dar es Salaam Teachers College carries the domestic science specialty up to the Education Officer III (Higher School Certificate plus Teacher Education) level. Generally the equipment for laboratory work in these latter two areas is quite modest.

Dar es Salaam Teachers College also includes training in industrial arts for Tanzania. In Kenya, the Kenya Science College offers industrial arts as a subject field along with the three sciences, geography, and math.

Summarizing, in domestic science and industrial arts, it appears that the teacher training is added to some of the regular teachers colleges. The tutors are largely expatriates and there seems to be no program in the planning stages for preparing specialized tutors of these tutors.

However, all of the East African countries are now renewing attempts to lay greater stress on the teaching of agriculture. In the past; elaborate plans for the introduction of agriculture in the primary schools have been attempted and abandoned largely because pupil motivation is quite difficult to generate. In Tanzania, the primary school effort will largely be made through practical efforts in gardening. All teachers will participate and will receive modest formal training in the National Education subject at the teachers colleges. At the secondary level, a plan with external aid through AID is being studied for introducing an agricultural bias in twenty secondary schools on an experimental basis. The ultimate plan is to introduce the agriculture bias into 60 or 70 secondary schools and to introduce vocational subjects including commercial subjects into the other secondary schools. Presently, Tanzania is training some agriculture teachers at Egerton College in Kenya where that country trains its agriculture teachers. Uganda presently has only three farm schools with an enrollment of 528; therefore, it has insufficient need for any major agriculture teacher and tutor education program. Uganda's Second Five-Year Plan states that an agriculture re-vitalization plan is to be implemented involving the settling of pupils on the land; but the AID Agriculture Officer feels that the present program will not be expanded soon.

Technical education is developing slowly in all three countries. Uganda has no vocational school. Tanzania had two (at Ifunda and Moshi) which they converted to technical secondary schools in 1966. Kenya has seven secondary vocational schools, three of which were only this year raised from the status of trade schools.

Uganda had 1,177 enrolled in technical schools in 1968 while Tanzania has only the two technical schools named above. Kenya has four secondary schools offering a technical bias. The Mombasa Technical Institute is being developed into a Polytechnic. Presently there is only Kenya Polytechnic in Nairobi. Technologists are currently prepared in degree programs at University College Nairobi only.

There are plans for training technical and vocational teachers at the Dar es Salaam Technical College. They will receive their professional training as well as their practical and theoretical technical training at the College. The Principal states that he needs a staff of three for teacher education which would have an annual output of eight or ten. He has currently arranged for two expatriates (English and Canadian) in this field. The Team believes that such a small program will be overstaffed with three.

In an announcement by the Permanent Secretary, Kenya Ministry of Education, April 1969, it is revealed that technical teacher training is to be given by expatriate Technical Trainers. The Principal of Kenya Polytechnic indicated that a small group of those trained in his program would receive teacher training and could be used in either the technical schools or the Polytechnic.

There appears to be no major external assistance required in these relatively small practical specialties other than in those projects already underway or planned. Commercial subjects for secretaries, bookkeepers, clerks, and typists are offered in a girls secondary school at Tororo, Uganda, and will eventually be moved into some of the secondary schools under a modest plan in Tanzania, however, the major interest in this type of training falls in the private economy sector presently and the ministries are therefore not yet concerned about teacher education in this vocational area.

Inservice Teacher Education

In East Africa inservice teacher education is a substantial enterprize, but it, nonetheless, is approached at a slow rate in proportion to the size of the task. It is such because of the necessity to prepare and utilize ex-primary personnel input at the pre-service training level. The Ministries, Institutes of Education, Teachers Colleges and University College Faculties of Education are the major agencies engaged in inservice education. The objective is improvement of instruction.

The programs are heavily oriented toward primary and secondary teachers and teachers college tutors in the nature of:

1. Upgrading - for promoting teachers and tutors after increasing subject depth content followed by ordinary or advanced level examinations;
2. Refresher Courses - acquainting teachers with innovations in method or new content:
    a. expediting changeover in syllabuses - modification of goals, purpose or content; and
    b. expediting the inauguration of new courses or biases - acquiring knowledge and understanding of one or more wholly new subject and perhaps even subject sequences; and
3. academic degree or graduate diploma in education study.

Evaluation in terms of credit for advancement and promotion is a problem with such an anomaly of enterprises as are found in "refresher courses": Types of programs offered in this category vary all the way from the sweeping UNESCO new materials and re-training program for all primary teachers in Tanzania to the narrow, specialized microteaching experimental program being proposed by the Tanzania Institute of Education for improvement of teachers college tutor instruction.

These programs are frequently sponsored by the agencies listed in the opening paragraph,but additionally,they are sometimes sponsored by professional teacher associations or by external donors who engage in these activities with the support and approval of one of the above agencies and always with approval of and frequently at the request of the Ministry of Education.

Examples of externally sponsored programs, past and present, in the various countries and the region are:

Kenya

1. U.S.A. National Education Association: New Primary Approach
2. UNICEF: Transportation equipment for supervisors in the New Primary Approach program
3. NEA Teach Corps: Training of district supervisors in the New Primary Approach
4. Sweden: Kenya Science Teachers College
5. U.S.A.: University of Wisconsin/Institute of Adult Studies of the University College/Radio correspondence courses
6. Canada: Upgrading correspondence program through the Kenya Institute of Education for unqualified teachers
7. United Kingdom: Faculty, University College
8. Ford Foundation: International Institute of Education

Uganda

1. U.S.A.: Upgrading teachers college science tutors
2. UNICEF: Upgrading 9,000 primary science teachers
3. U.S.A.: Providing education specialist for the Institute
4. Educational Development Center: Providing science specialist for University College Faculty
5. United Kingdom: Faculty for University College and teachers colleges

Tanzania

1. UNESCO: Department of Architecture in the Ministry of Education
2. UNICEF: Providing printing equipment for publishing textbooks and other materials; providing technical assistance on syllabus revision; and providing a plan for massive re-training of primary teachers in the new National Education
3. U.S.A.: Technical College technical assistance
4. U.S.A.: Agricultural Faculty University College capital and technical assistance
5. United Kingdom: Faculty, University College
6. United Kingdom: Technical College capital
7. Denmark: Iringa Teachers College building and Industrial Arts bias

Regional

1. U.S.A.: Providing teachers college tutors
2. UNESCO: Science (Primary)

3. U.S.A.: University of East Africa Annual Teacher Education Conference
4. Educational Development Certer and Center for Curriculum Renewal and Educational Development Overseas: Social Studies Conference
5. Carnegie: Regional Council for Education, International Institute of Education, etc.
6. Ford: Regional Council for Education, International Institute of Education, etc.

In the face of overwhelming need, every one of these projects and many similar ones serve as complements and supplements for massive local government efforts in the form of short courses between terms for both teachers and tutors. Especially important are those externally supported projects which provide for the training of their technical assistant replacements. However, the Team, having studied also the significant shortage of qualified personnel for such training and the pressing local cost of financing such trainees and their professional replacements out of generous but maximum education budgets, feels that donors should be aware of the fact that local governments must weigh project merits against local financial sacrifice. The governments may frequently be forced to admit inability to finance what others view to be logical local contributions to such projects. Tanzania is already taking a realistic approach on these matters.

Exemplary of both government and external technical assistance planned programs, are those described in the next two paragraphs.

The Tanzania Ministry of Education has a formalized upgrading program in addition to many special refresher courses, seminars and workshops. Some are supported locally and some with external support. Responsibility for upgrading primary teachers rests largely with the teachers colleges. Three hundred and twenty are upgraded from Grade C (ex-primaries) to Grade B (ex-Standard 10's) each year. Applicants for admission are given qualifying tests on (1) Swahili, English, and math, (2) civics and the national philosophy (current affairs on Ujamaa) and (3) general knowledge. The program is as follows:

Six weeks in November and December: subject is Swahili

Four weeks in August: Subjects are math and science

Six weeks in November and December: Subjects are social studies and education

Every year fifty-two women are upgraded in a one-year program with emphasis on domestic science. Dar es Salaam Teachers College upgrades forty teachers with secondary school Forms 1 and 2 as background to Grade A (secondary school certificate background) on a one-year program each year. It also annually upgrades twenty to thirty Grade A's to Education Officer III (Higher School Certificate background) classification in a one-year program including study of education and two academic subjects.

Another good example of an upgrading inservice program is that arranged by the Canadian Team at the Kenya Institute of Education. It is a program for unqualified teachers and it is in two parts (April Session and August Session). Specific content is as follows:

Education - classroom management and discipline, evaluation, child study and learning; English - developing oral skills, reading readiness, teaching phonics, vocabulary; methods and materials in the New Primary Approach; History - methods; Geography - methods; Mathematics - methods; Science - methods; Music - methods. Extensive inservice course materials for both sessions have been prepared for the students and a sequence of approximately ten radio broadcasts on selected topics is presented during each session. Of course there is a final examination!

Supplementing this coursework in education and subject methods in Kenya is the correspondence course unit of the Institute of Adult Studies, University College Nairobi, presented by radio and correspondence and designed to help P3 (primary school background) teachers and other students who have completed primary school prepare for the Kenya Junior Secondary Examination. Courses are offered in six subjects at the Form 1 level. English, Kiswahili, mathematics, geography, history and biology. Form II level in all but biology is also available.
P3 (primary school background) teachers earning the Kenya Junior Secondary Examination Certificate are eligible for promotion to P2 (Forms 1 and 2 background). The University of Wisconsin, under USAID Contract, provided the technical assistance in developing this program. They are training counterparts.

For external aid efforts, the area of inservice teacher education is fertile ground for imagination. This is especially true from the standpoint of upgrading tutors and of providing pre-service preparation for primary teachers to enter the tutor ranks (discussed elsewhere in this report). It is also true from the standpoint of possible efforts to improve instruction by special projects in specific subject fields and in general efforts to increase local capacity to produce instructional materials and to increase their supply. To repeat, however, the major problems thwarting any hopes for an acceleration plan are those of local finance and the capacity to concentrate on managing this phase of the total educational operation. By some device, donors may find it necessary to aid local financing in such acceleration projects.

Suggestions for AID Assistance

Improvement in the leadership and administration of teachers colleges is important and needs assistance. Additionally, there are a number of less important needs pertinent to program improvement which will be discussed here.

Leadership Development

1. Teachers College Principal Training Program

In all countries, officials were highly interested in introducing the New Primary Approach, more creativity, activity, problem solving and self-education methods. Not only is it important to re-train teachers in the new methods but pre-service tutors should practice and teach the new methods. However, skillful teachers college leadership for faculty action on program and methods change is lacking. Tradition has developed leadership by decree and this is alien to the necessary approach.

Principals and other leaders tend to believe that any educated person can administer. The leaders told the Team they were somewhat sensitive to challenge in this area. Therefore, there is a problem: How can one get skillful leaders into the teachers colleges in order to exemplify these qualities for the principals and begin to help the faculties in self improvement and in pooling their strengths?

In the past ministry officials have been interested in placing "aides" or "Directors of Studies" in the teachers colleges but have not yet done so in many teachers colleges, especially the smaller ones. Both the ministries and many of the principals might be interested in this plan titled "Teachers College Principal Training Program".

a. AID would offer to provide capable, experienced principals or supervisors (well-known for their faculty leadership skills) to serve as assistants, or tutor-assistants, (no more than half-time teaching duties) to the Principals in perhaps one-third of the teachers colleges at a time. The purpose would be to have these assistants training as temporary replacements (or to continue as assistants if another tutor became Acting Principal) in order to enable the Principals to go to the U.S.A. for approximately one year's training through the masters degree in "leadership" or "administration" programs which would be planned to build on and supplement their strengths. The new "assistant" could advise the U.S.A. institution and the principal on his programming.

b. This would continue in waves until all the principals as deemed necessary were trained or until the project was terminated.

c. The project in each country should be on a contract basis with a capable university. This could be the same university which would provide technical assistance and participant training in the other suggested tutor and specialist training programs described in this report.

d. To provide for attrition, approximately an equal number of selected tutors from various teachers colleges should similarly be trained with temporary tutor replacements perhaps from a pool of U.S.A. tutors in the project.

e. It is the Team's judgment that this project would interest Uganda and Kenya. It is doubtful about Tanzania at this time.

2. Providing a Professional "Counselor"

It is the Team's feeling that in the Ministries of Education there may be an interest in utilization of an unofficial and off-the-record person with whom one or more ministry officials could discuss informally problems and solutions on an unscheduled and completely unofficial and informal basis. This person would work with one or more ministry officials only to the extent that they would keep him informed of developments and that he would be on call. His contribution would be in the nature of contributing suggestions when asked about his ideas and he sees ways to handle problems. He would of necessity operate on a strictly confidential basis and must, therefore, be one who has no need of personal and professional recognition. It would be hoped that eventually this "counselor" would gain such a degree of confidence by the ministry personnel that they might invite him to offer his insights from time-to-time. The Team felt that some of those with whom they conferred appreciated the "stretch" of ideas which occurred in their discussions.

3. Need for Guidance-Counselors and Audio-Visual Specialists

In concluding this section of leadership and administration, the Team acknowledges a request for its attitude on the need for additional training such as that for school service personnel in the nature of guidance counselors and audio-visual directors. In the audio-visual area, the Institutes of Education, with the recent addition at Makerere, have all established modest departments. Makerere plans to train technicians in the field. The Dar es Salaam Teachers College has developed course outlines for an audio-visual study requirement in all teachers college programs adequate for the small amount of equipment available in Tanzania schools. Therefore, the need in this area is quite modest and in the face of the serious need for qualified teachers and such limited finances for the total education enterprize, the team holds this area in low priority for development. The Team also places in low priority the staffing of schools with guidance counselors.

Broad Administrative Policies and Practices Needing Study

1. Annual Term Schedule Pattern

The inservice teacher and tutor education program in the East African countries and the annual term schedule pattern together create a problem. Although there are many short-term upgrading courses scheduled between the school, college and university terms it seems that there must also be some long-term (full-year) courses. Participants in these are sometimes restricted in number because of limited student housing. Additionally the educational budget suffers on the year-long program because the teacher and his replacement must be paid their salaries. The students sometimes suffer during the long-term upgrading periods because the substitute for the participant is frequently less qualified. Students also suffer during many of the short-term inservice programs because these courses frequently overlap school and college terms. Not infrequently, then, the tutors depart early and leave the students without teachers for the remainder of the term.

The Team feels that some aid might be offered to key ministry personnel to study the term schedules in Europe, U.S.A. and Canada with a view toward changing from the system inherited. If, after the visit, these officials become further interested, they might wish a specialist to study the local system and produce some alternative models for change or further study and potential action.

The nine-month program, recognized as a full year of work, would provide a period of approximately thirty-five weeks of classes and five weeks of vacation time, bringing the total school year to forty weeks. Remaining is a period of twelve consecutive weeks of which ten or eleven could be used as an "extra" term. All schools, colleges and the university would follow the same schedule. Teachers and tutors, continuing to be employed for the full twelve months, could therefore study or lecture much of the extra term for inservice training purposes

Other teachers would work on curriculum, instructional materials production and periodically they would be eligible for travel or simply rest.

Some advantages of the compact nine-month schedule are:

1. A continuous two or three-month course during the extra term would be possible thus diminishing the fragmentation of inservice programs.
2. Replacements for participants would be unnecessary because a year's upgrading could be accomplished in $2\frac{1}{4}$ years - three consecutive extra terms - thus avoiding the necessity for full-year courses and thus avoiding also substitutes in the school classrooms.
3. Housing for inservice personnel would be available during the longer extra term because the regular students would not be in session.
4. Special short-term refresher courses could more easily be staffed by donor external specialists because all short-term courses could be scheduled in the extra term which could deliberately be made to coincide with the extra term in most of the donor countries commonly contributing specialists. Furthermore, local participant tutors and teachers could remain in their own classrooms throughout regular terms on the annual schedule because schedule overlap would no longer be necessary.

The Team recommends that serious consideration be given to revisions of schedules that would reduce the interruption of instruction and that would be based on student needs rather than teacher and tutor convenience or needs.

2. Cummulative Credit System for Study

Many officials in the education systems as well as teachers, principals and headmasters have attended, over the years, many seminars, institutes, workshops and non-graduate diploma courses accumulating enough in practical values and certificates for one or more university degrees appropriate to the profession. However, because no standards of credit and cummulative credit system has been devised, the individual suffers in both salary and prestige. It would appear likely that many of these activities are valuable for the professional person and logically could and should bear some merit as a segment of either the university degree program or the salary scale or both.

On several occasions, ministry personnel and others manifested interest in some help in the form of a qualified technical assistant to study this question and construct some models for establishing credit, perhaps including university and college credit by examination.

3. Salary Schedule Study

There are some problems with teacher salary schedule in relation to other government salary schedules and there are perhaps also some inequities within the teacher salary schedule itself. For instance, the schedule may actually favor degree holders too heavily. Furthermore, the schedule may contribute to the fairly consistent and undesirable instability of tutor staff and Principals in the teachers colleges. The Team feels that there are those in the ministries and elsewhere in the profession who are interested in technical assistance on a salary schedule study.

4. Teacher Education Institutional Evaluative Criteria Development

On the basis of interest in at least one Institute of Education, the desirability of providing a technical assistant or two to develop, with local consultation, a set of evaluative criteria based on modern educational concepts and processes might be investigated.

5. Broad Teacher Education Program Remodeling

The activities in this category are the outgrowth of local interest in broadening both primary and secondary education programs and in attaining greater prestige for the primary teacher and the primary teachers colleges.

The current strong interest in broadening school programs, both primary and secondary, is important for these nations. New methods and techniques play a major role in the success of such programs with emphasis on process as well as content in learning. Essential also is a change, then, in teacher education and teacher education programs whether primary or secondary. Finally, innovations in teacher education methods are important in achieving the best with teacher education students. Therefore, those planning such changes might visit exemplary primary and secondary schools, exemplary teacher education programs, both primary and secondary. These visits could also include observation of the new methods in teacher education such as microteaching, interaction analysis and simulation. The best place in which to see these programs and practices is the U.S.A.

The local personnel involved in such visits would be primary and secondary teachers, college tutors and principals, University College Faculty of Education including the Dean, and appropriate ministry officials. The size of the group would depend on financial resources of AID or other donor. However, a party of twenty-three with the following representation is suggested: two primary teachers, two secondary teachers, two primary teachers college tutors, two secondary teachers college tutors, one primary school headmaster, one secondary school headmaster, one primary teachers college principal, one secondary teachers college principal, two University College education faculty, University College dean, chief education officer in the ministry, assistant chief education officer in the ministry, chief inspector in the ministry and the secretary of the East Africa Examinations Council. If necessary, seven could be cut from the list by limiting each category to only one representative.

The length of visit is not inflexible, however, a month is suggested as minimal and six months as desirable. It would be advisable to place an appropriate university in charge of arrangements in the U.S.A. Not less than two and not more than three good schools and good teacher education programs might be visited and observed by the interested visiting group members. Visits should not be limited to one institution nor should they be spread too thin. Some observation in depth is necessary for comprehension.

Finally, two additional visit purposes could be achieved by the visiting university, teachers college and ministry personnel. First, they could study and visit some graduate programs in administration and research. Secondly, they could study college of education organization, especially the place of primary teacher education in the structure of the university or college.

Out of such a venture should emerge a team of individuals with a deep sensitivity to and a large knowledge of good programs, methodology, instructional resources, and administration as they move forward in their own program remodeling efforts.

Section 4

CURRICULUM DEVELOPMENT AND INSTRUCTIONAL MATERIALS

In Kenya, Uganda and Tanzania, curriculum development has particular relevance to teacher education because tutors from teachers colleges and faculties of education participate in the development of new or revised curricula. Also, the changes in both subject matter and approaches to learning designed for primary and secondary students helps redefine the responsibility of the tutors in the colleges and universities.

The curriculum development process in the three countries involves the development of a syllabus at primary or secondary levels for each subject area. Next, materials such as texts, teachers guides and units of study are developed and tried out experimentally. When approved, syllabuses and the materials are disseminated for use by all aided schools in each country.

Ultimate responsibility for approval for syllabuses and materials lies with the Ministries of Education. Syllabuses are prepared by subject panels composed of representatives of the Ministry (usually a member of the inspectorate), tutors from colleges or the university, teachers, curriculum specialists from the Institute of Education and other co-opted appropriate specialists, including headmasters and headmistresses. Typically these panels are staffed by people with other full time positions. And, the time they have available is generally quite short. Hence syllabuses produced tend to be topical and relatively brief.

The development of subject syllabuses by panels seems to be a good procedure to continue. It is a centralized responsibility which provides uniformity and a floor to quality throughout the country. Participation by representatives of the several segments of the educational system who have a stake in the curriculum enhance the possibility of "balance" and acceptance of the syllabuses. However, since most panel members are "insiders" it would be desirable to include a specialist from outside the subject field who would look at the problems and proposals from a different perspective.

The development of syllabuses on a part-time basis by educators with other full-time responsibilities seems feasible. However, the development of appropriate courses of study and instructional materials requires experts who can give full time to this development. It is the feeling of the Team that the Ministries of Education in the three countries have not yet fully realized the complexity and technical requirements of this process.

In developing countries texts and teachers guides are more crucial to students achievement than they are in developed countries. Because, in developing countries teachers, particularly in primary schools, have had little schooling and preparation; few if any other printed matter are available; and teachers receive little instructional supervision. Also, the curriculum and teaching procedures the countries are advocating constitute a considerable break from traditional methods.

The Team feels that adequate instructional materials in the hands of each student are, next to a good teacher, the most important means to good education in East Africa. In a situation in which few books, pamphlets, atlases and other materials are to be found in classrooms a goal of a book per child per subject and grade, is a desirable goal. In primary English, Swahili and science, series of booklets, pamphlets and units may be more suitable than a single text. These should be backed by a teachers guide for each subject and level.

The demands for curriculum change seem such that the current efforts must continue. However, for long range changes, findings from comprehensive research related to personal and social development of African children seems imperative. Such studies into how African parents pass on their culture to their children and how they teach them to cope with everyday problems could lead to modifications in the organization and procedures of schools which are unique to East Africa. Also, results of these studies are needed by the professional education departments of teachers colleges to lend relevance to their courses. Hopefully such changes would lead to more congruency between childrens' in-school and out-of-school experiences.

From this point on the description and analysis of the curriculum revision process will focus on each country in turn.

Kenya

In Kenya the coordination and management of subject panels is the responsibility of the Ministry of Education's Institute of Education. Members of the Kenya National Union of Teachers are also eligible to be members of panels. The sixteen primary subject panels, in addition to preparing syllabuses in their areas, have the responsibility to give advice about syllabuses for primary teachers colleges. Secondary subject panels, established in 1967, now cover 14 academic areas, plus 12 in industrial and technical arts, commercial and agricultural education, and pre and inservice professional education.

Preparation of Instructional Materials

To prepare the instructional materials related to syllabuses, the Department of Curriculum Development of the Institute has organized eight subject sections. The 1968-1969 institute report indicates the production of a creditable number of texts, teachers guides, tapes and instructional equipment, in six of the eight sections. The production was accomplished even though each section was considerably under its full complement of staff members. For example, at the time of the Team's visit only one of an allotted 10 persons was on the job in one section. While several were on leave, there were also a number of vacancies. The Ministry of Education has difficulty obtaining persons for these positions, apparently because there are no salary adjustments and the cost of living is high; adequate housing is not available; and the supply of citizens who like and can do this kind of work is limited. The shortage of curriculum workers not only retards the production of materials, it seriously interferes with their experimental try-out and introduction to teachers.

Several persons indicated that the difficulties met in getting prepared materials through the publishing process at a cost which schools could afford was difficult and thus was a morale problem for staff members. This matter seems quite crucial, for if students are to gain self-confidence through experience in problem solving and independent thinking they must have the materials for inquiry free from close dependence on the teacher's store of knowledge.

Priorities for Educational Research

The Kenya Institute of Education has indicated its research priorities as follows:

1. Testing and examinations in primary education

2. Problems of child growth and development
3. Problems of visual preception
4. Problems of multilingualism with special reference to the effects on children receiving three languages at the start of schooling.

Though testing and examination is listed above as a research activity, an analysis of Kenya's examination system in light of modern thought on evaluation of instruction and educational systems seems a necessary first step. Revisions in the system might be tried out through action research processes.

In summary Kenyan educational officials have indicated the need for experts in these areas to either continue or begin activities: subjects taught in the schools, curriculum development management, the organization and preparation for publication of integrated instructional materials, child development research methods, and evaluation of educational programs (includes testing and measurement).

A high percentage of the department members are now expatriates. While in the short-run this is not a disadvantage, the difficulty of obtaining and keeping qualified and experienced locals is a barrier to achieving self-sufficiency.

The Kenya Institute of Education seems to be a good agency through which curriculum development and research activities could be channeled. First, it is an agency which exists and has defined responsibiilities. Second, it has university, college and school relationships. Third, personnel assigned there, particularly specialists, could perform multiple responsibilities, thus adding flexibility to the Institute. For example, a specialist in the teaching of social studies could help develop syllabuses and instructional materials. Time permitting he might also do research in the area, give pre-service courses through the university or colleges, give inservice courses at the Institute and train his replacements. No one person could probably carry on all those activities simultaneously, however, some combinations seem possible.

Assistance for the activities described above is desirable because:

1. New curricula and instructional materials are greatly needed and wanted.
2. Assistance from outside the country is needed to accomplish the tasks.
3. Results of the activity will influence all of the teacher training colleges and schools of the country. That is, the provision of a relatively small number of persons can have a broad impact on the school system.
4. Specialists will be in a technical staff role thus making their acceptance relatively easy.

Conditions and Suggestions for AID Assistance

Involvement of AID in support of curriculum development and research activities should depend in part on the provision by the Ministry of Education of certain resources and the resolution of several problems described below.

Counterparts should be supplied for every specialist provided. One or two participants could be sent to the U.S. for study, also one or two persons might be trained on-the-job.

Several local educators are needed for each activity. For example, in the development of a new social studies curricula persons would be needed to gather data and information, prepare manuscripts, work with schools to try out prototype materials and to feed back reactions. The Institute has been unable to attract and keep local educators for these positions due in part to inadequate housing and salaries. Transfer of the Institute to the University College of Nairobi may give the Institute more financial flexibility. Kenyatta College, which may also become a part of University College Nairobi, reportedly has considerable housing and office space available. Perhaps the Institute could be housed at Kenyatta College.

The process of having instructional materials approved and printed is apparently quite complex and lengthy. Also, the costs of production are reported as being quite high.

It is proposed by the Team that AID support the curriculum development and related research activities described above by providing five specialists for a five year period and participant training for five persons for a two or three year period each.

The specialists would be assigned to the Kenya Institute of Education four years each to assist in the following areas:

1. Teaching of primary social studies
2. Coordination of curriculum development
3. Educational publications
4. Child development research
5. Educational evaluation and testing

One participant should be selected for each of the five areas listed.

In addition it is proposed that the Ministry of Education provide ten persons, two to each specialist, to assist the specialists and to be trainees in that area. It is assumed that other support positions already established by the Ministry would continue.

The five areas were selected because of interest by local education officials and because the Team felt they were important areas. It is realized that after conferences between Kenya AID and Ministry officers some redefinitions of need may occur. The area of social studies was chosen because no intensive work by Kenya Institute of Education personnel has yet begun in this area. Development work has been going on in most of the other curriculum areas for several years and further support may be desirable. The curriculum development person would serve as a resource person to subject panels. It would be his responsibility to assist in the design of syllabuses and to coordinate efforts among instructional areas. Working with the educational publications specialist he would assist in the development of courses of study and instructional materials. The publications person would coordinate the design and printing processes. The child development and evaluation and testing persons would direct the activities in those areas.

It is suggested that the participants in social studies, curriculum development and educational publications work toward MA degrees for a two year period and that the participants in child development research and evaluation and testing work toward doctorates over a three year period.

It is proposed, too, that the social studies, curriculum and publications specialists terms be for the first 4 years of the project and that the child development and evaluations specialists terms be for the last 4 years. This arrangement would give each participant a two year period to take over from the specialist.

Uganda

The development of syllabuses for primary and secondary schools in Uganda is directed by the Inspectorate of the Ministry of Education.

To support this responsibility, the Ministry plans to establish a Curriculum Development Unit. The development and management of syllabuses for the teacher training colleges is a responsibility of the National Institute of Education. In 1966 and 1967 syllabuses for the two lowest level teacher preparation programs were developed. Most primary teachers are trained for these two grades. That was the first time in the country's history that aims for primary teacher education were clearly described. The intent of the new syllabuses is to enable students (future teachers) to inter-relate content and method and to feel the social implications of their responsibilities. The secondary teacher program at the National Teachers College was broadened to include a course in liberal studies, home economics, handicraft and physical education. The Faculty of Education at Makerere University College plans to add courses in practical arts, commercial education and more language fields.

Current curriculum development efforts in primary and secondary schools have centered on science, maths and the New Primary Approach to the teaching of English. In all three of these areas, emphasis is on an approach to learning which encourages student independence and discovery of principles through practice. Several sources have said that the provision of teachers guides, orientation of teachers to the new approaches and evaluation of their efficacy is inadequate.

Preparation of instructional materials now seems to be informal and private. That is, both the Ministry of Education and private publishers are approaching individuals to prepare texts and other materials appropriate to the new syllabuses.

Some change in this procedure may occur shortly. Currently negotiations are in progress between the Ministry of Education and a consortium of UNICEF, United Kingdom and Nordic interests to establish a curriculum development center to be located at the National College for Teachers (Kyambogo). The Chief Inspector of Schools described future curriculum development and dissemination efforts as being coordinated by the curriculum center with work being decentralized and involving the Institute of Education, teachers colleges and schools.

The Team feels that Ministry of Education officials have considerable interest in continuing to improve the curricula of their schools and colleges. The officials feel too that they will need considerable inputs from donors to effectively make these changes. Specialists similar to those listed for Kenya will be needed for Uganda. The source of these specialists and the way they might make a contribution seems quite unclear at this time.

It seems, too, that the establishment of a curriculum center apart from Makerere University College and the Institute of Education will result in a diffusion of resources and rigidities in operation.

Until these several problems and uncertainties are resolved, the Team does not recommend any AID support at this time for curriculum development efforts for Uganda.

Priorities for Educational Research

Educational research is the responsibility of the National Institute of Education. Their "Draft Development Plan, 1970-1973" states that educational research is an important basis for planning programs. Further, urgent need is expressed for research in child growth and development, testing and measurement, and evaluative criteria for schools.

The rationale developed for research studies in child growth and development and testing and measurement in the introduction to this section seems quite applicable to Uganda. The development of procedures whereby educational institutions at various levels can measure their own efficiency and achievement also seems desirable. As is mentioned elsewhere in this report improvements in the management and leadership of schools are needed.

The development and application of evaluative criteria for schools in the U.S.A. has become almost nation-wide because of its utility. The development and use of appropriate measures in Uganda would also be of much help.

The conditions set forth for the support of research in Kenya also seem appropriate for Uganda. That is, the provision of specialists from the U.S.A. and adequate training of their replacements seems necessary. The provision of sufficient support personnel for the activity by the Ministry of Education is also a necessary requirement.

In addition, because of the practice of frequently transferring educational leaders, because of the shortage of such persons, some personnel stabilization policy should be invoked for any project that is proposed.

Because planning between the Government of Uganda and AID/Uganda for assistance in the area of research is already underway, no further description is given here.

However, the Team reiterates its feeling that research is an important activity.

Tanzania

The curriculum development process in Tanzania is in a period of great change. That is an understatement, for the educational system is being shifted from traditional patterns and purposes to something quite different.

Nominally the production of syllabuses, development of instructional materials and introduction of them to teachers is the responsibility of the National Institute of Education. Members of the Department of Curriculum do assist the work of the subject panels, particularly in secondary education.

In 1968 responsibility for curriculum development was decentralized, in accordance with a general governmental policy of bringing government closer to the people. The development, production of materials and their dissemination for each primary school subject, including political education, has been assigned to the relevant department of a particular teachers college. Panel membership is similar to that of the other countries except that panels include relevant tutors from all other teachers colleges. Functionally, primary school curriculum is the responsibility of the Ministry of Education with the help of the teachers colleges.

For secondary school curriculum development Tanzania has been divided into 10 regions. In each region a teacher has been appointed coordinator for each subject. Each regional coordinator conducts meetings and is the representative to the national panel for his subject.

Headmasters of teachers colleges are the curriculum panel for their colleges. As of now syllabuses for Grade C and D teacher training programs (the lowest two of four qualification levels) are in draft form. They were revised to emphasize national values and goals. Because primary teachers are seen as a prime means by which the national spirit can be promulgated, and teachers college tutors are the agents of that process, considerable emphasis is given to those syllabuses and their implementation.

Work of the several panels is reviewed by two coordinating panels and the related department in the Ministry of Education.

While some syllabuses and instructional materials have been redesigned to achieve the desired directions in education, it is the feeling of the Team that the major shift has not yet begun. One Ministry official indicated the need for new directions when he said, "Specialists shuffle the content into new patterns but do they make any real progress in the establishment of the society we desire?" Statements by others indicate that Tanzanian influentials want the education of children to be a part of, grow-out of and contribute to the life of the community. They want children at whatever level they leave school able to be effective members of their society.

Indications are that while the direction and function of education is clear, the major curriculum design concepts and the ways to make them operational are not yet clear. One Ministry official seemed quite interested in considering and studying non-traditional curriculum designs.

Some preparation for a major change seems to be in the offing. Brief references were made to a "blue ribbon" committee studying the educational system. Also a four year project agreement among the Government of Tanzania, Food and Agriculture Organization, UNESCO and UNICEF for primary education reform is in final stages of negotiation. This agreement calls for the development of new curricula, experimental try-outs of them, publishing and printing, child study for new methods of primary instruction and reorientation of teachers, tutors and supervisory personnel to the new methods. A description of the proposal, in the National Institute of Education Director's Report, July 1969, gives no indication of the planned donor inputs of personnel, equipment and materials. The Team and several educationists in Dar es Salaam feel that Ministry officials do not realize the magnitude and complexity of the proposed endeavor; nor do they have qualified Tanzanians available to do the job. For example, the proposal calls for a printing press to be provided and housed at the National Institute of Education. No mention is made of related publishing services needed to make a printing press effective. Also, a Ministry official indicated they could use the services of an expatriate textbook writer. Again, no mention was made of the need for related personnel.

Conditions and Suggestions for AID Assistance

The present organization for curriculum revision places a heavy responsibility on primary teachers colleges and on teacher-coordinators of secondary schools. It might be feasible to place expatriate subject consultants at each one of the centers to bolster local staff. One such consultant is now working on one campus. His efforts and the arrangements are well regarded.

The National Institute of Education would like a specialist to continue research into child development. They also feel they must Africanize the research cadre. To do so they propose that Institute staff members and "serving teachers" follow part time courses leading to first or higher degrees in the areas of knowledge required to staff the Research Department. They feel they need in addition to secondary school subject specialists, research personnel in comparative education, educational measurement, pure and applied psychology.

However, the Institute and the University College Dar es Salaam are now being evaluated by a government committee. Their report may be highly critical of both the University College and the Institute. So, the future of the Institute seems uncertain. The current conditions in the country and in the educational establishment makes uncertain the feasibility of AID assistance at this time. It may be better to wait until they ask for assistance.

Some outside assistance to curriculum development efforts at primary teacher training colleges may be possible. A more likely possibility is the provision of a specialist in research methodology to train National Institute of Education personnel to carry on research. Workshops in this area have been conducted by University of California and Makerere University College specialists. The Ministry of Education may also be interested in training some of their research curriculum development and educational materials personnel abroad.

Regional Cooperation

All three countries have similar aspirations and needs for curriculum change, instructional materials and educational research. However, national interests and unique approaches to the problems diminishes possibilities for joint efforts for their resolution.

Regional cooperation in child growth and development research seems very important. However, when the idea of joint research projects was discussed with the directors of the institutes they seemed to be interested in cooperation, and described ways in which they were cooperating. They felt, however, joint research projects were not feasible.

It is suggested that, if AID decides to support research activities, mechanisms be built into agreements to facilitate cooperation among the countries. One procedure would be to create a "joint" project for educational research designed to allow each country to participate in its own way and for its own purposes. Also, one element which could be built into a joint project or country projects is support for regional research conferences, seminars and workshops. Reports of regional conferences sponsored by several agencies during the last several years indicate participants have received significant benefits from the meetings.

The publishing of instructional materials is an activity in which joint efforts could be very important. Development of materials by ministry teams and individuals is a useless exercise if their products are not produced at a cost to make them readily available to students. Technical and financial limitations and political considerations in the three countries have blocked the goal of a book per child per subject and grade.

The Team strongly urges AID to review and reconsider studies which have been made in the three countries as to ways printed educational materials could be inexpensively published and distributed. From this basis, AID officials or a short-term resource person could explore with host governments these problems for the purpose of reaching agreements for programs and projects.

Section 5

STAFFING TEACHERS COLLEGES

In Tanzania, Uganda and Kenya government leaders frequently stated their belief that good education for all children is the means by which those countries can achieve their long range social, economic and political goals. Their faith in education is indicated by the fact that those governments have increased allotments for education to between 20% and 29% of their budgets.

In all schools teachers are central to the achievement of students in school. Each of the three countries have emphasized the importance of African college tutors and school teachers to the education of their children and youth. They have in varying degrees demonstrated their commitment to this belief. In these three countries the competency of the teacher is most crucial to student accomplishments because there are few instructional materials and other supporting services for teachers.

Extending the competencies of university and college trainers of teachers (lecturers and tutors) is crucial to the development of their students. Further, extending the effectiveness of the teachers of tutors considerably influences the competencies of tutors.

In the opinion of the Team, the provision of well qualified faculties and tutor staffs who are African is of utmost importance to education in these countries.

Factors related to staffing teachers colleges will be discussed for each country in turn. The factors include desired tutor qualifications, quantity of new tutors needed, programs for preparing tutors and trainers of tutors.

Procedures for programming the training of primary teachers college tutors to accommodate expansion, attrition replacement of expatriates and the reduction of the number of undertrained tutors will be described in Section 5.

Suggestions as to possibilities for AID assistance in all three countries are described together at the end of this section.

Tanzania

Before indicating the needed developments in the Tanzanian corps of tutors, the current situation is described as a bench mark from which progress can be made.

In 1969 seventy-two per cent of teachers college tutors in 16 primary teachers colleges and one secondary teachers college in Tanzania were citizens. The Teacher Training section of the Ministry of Education proposes that in 1974 ninety-eight per cent will be citizens.

The array of numbers below indicates the qualification levels by per cent of the citizen teachers college tutors in 1969 and what they hope to achieve in 1974.

School Levels Reached	Per cent in 1969	Per cent in 1974
University graduates or equivalents and above	8%	26%
Six years secondary school plus two years teacher training (Diploma and EO III)	65%	67%
Four years secondary school plus two years teacher training (Grade A)	17%	6%
Less qualified	10%	1%

At the same time the Ministry proposes to increase the number of tutor positions by 76%. The Team estimates Tanzania will need 48 primary teachers college tutors each year for the next five years to meet the

the planned growth in the school system. Attrition has not been taken into account in this estimate.

Efforts to accomplish (1) the almost complete localization of the corps of teachers; (2) a considerable increase in the qualification levels; and (3) a large expansion in the size of the corps of teachers college tutors indicate great expectations. However, limitations in financial resources and the numbers of persons qualified to become teachers college tutors raise doubts as to the possibility of their achieving those goals.

Educators from the three countries frequently state the desire that all college tutors be at least graduates of the university. The array above indicates that Tanzania plans for the next several years to have most of their tutors in teachers colleges to be prepared below that level. This indicates they have compromised their aspirations to fit training and operating costs, and the limitation of facilities for advanced degree training in Tanzania.

Primary school tutors are now prepared in University College, Dar es Salaam, and the National College of Education Dar es Salaam. The University College prepares among its education graduates mostly secondary school teachers. However, they plan to establish a program for teachers who plan to be primary college tutors. Primary education courses will be offered for them. It is anticipated that the output of graduate primary tutors from the University College will be 15 in 1970 and 20 each year from 1971 to 1974.

The National College of Education, Dar es Salaam, was converted to a secondary school teacher training college in 1965. It began to also train primary college tutors at the diploma (sub-degree) and Grade A levels in 1969. The output of primary college tutors from this source is not known by the Team.

Additional teachers college tutors will be obtained by transfer of experienced teachers from secondary school staffs as the supply of graduate teachers in those schools increases.

The Faculty of Education of University College, Dar es Salaam and the staff of the National College of Education, Dar es Salaam are largely expatriates. Localization of these staffs can be accomplished in part by direct transfer of experienced graduate primary teachers, college tutors and secondary school teachers. However, the provision of MA and doctorate level faculty members seems to be a long-time and costly process. Part of the problem is caused by an absence of graduate programs in East Africa.

Until such programs are developed in East Africa there seem to be two alternative ways for Tanzanian educators to obtain advanced degrees. The Government of Tanzania could send, assisted or unassisted, participants abroad for training. In other sections of this report it is suggested that specialists be brought to Tanzania to assist in curriculum improvement research and inservice administrator programs. Possibly some of them might offer a course in their specialty by extension from their universities and colleges. Thus, some Tanzanians could fulfill some of their advanced degree requirements "at home."

Uganda

The current situation as to the characteristics of the Ugandan corps of tutors is as follows:

Forty-seven per cent of the teachers college tutors in 24 primary teachers colleges and one secondary teachers college in 1967 were Africans. The Primary Teacher Training College Staff Development project which currently is being reviewed by AID/Uganda proposes to increase the per cent of

Africans in the corps of primary teachers college tutors. This is to be done by consolidating 10 small teachers colleges into two larger ones capable of training more teachers. However, even with this contemplated increased output of primary school teachers the per cent of primary school age population which can be accommodated in school will decrease.

So, if Ministry of Education policies and practices regarding the staffing of teachers colleges continue, they will need and want expatriate tutors for some time to come.

The qualification levels of African Primary Teachers College tutors in 1967 was as follows:

School Levels Reached	Per cent
University graduates or equivalents and above	9%
Six years secondary school plus two years teacher training or four years secondary school plus three years teacher training (Grade V)	13%
Four years secondary school plus two years teacher training and inservice courses (Grade IV)	44%
Four years secondary school plus two years teacher training and those less qualified	34%

Ministry of Education officials have indicated that they would like to have primary teacher colleges staffed with persons at Grade V or above. The Team feels that this aspiration is a desirable goal; and further that as the goal is achieved the quality of the teacher education program will improve. Further, the Team feels that now and for several years to come emphasis should be placed on training of Grade V tutors rather than on preparing tutors with degrees. Training time and costs are lower; salary costs will be lower; and fewer Grade V tutors are likely to leave for other positions both in and out of education than would be true of graduates.

The process of reaching the desired qualification levels for tutors will require considerable time, effort and expense, for 78% of the tutors are now below the proposed standard. Substantial inservice programs must be mounted to reduce the number and per cent of "unqualified" tutors.

Primary teachers college tutors have been trained in the following institutions. The university graduates were trained at either one of the East African University Colleges or overseas. The Grade V tutors were possibly experienced secondary school teachers who were transferred into primary teachers colleges or primary tutors who have taken considerable inservice work. The Grade III and lower tutors undoubtedly were primary school teachers who transferred directly into teachers colleges.

For the next several years an average of about 11 new primary teachers college tutors will be needed each year to maintain the size of the existing staff. One way to obtain most of these tutors at the Grade V level is from the National Teachers College which now prepares secondary school teachers at that grade. Depending on previous school level reached by the student the training programs are for two or three years. Thirty per cent of the student body have had previous teaching experience. Some of those with experience in primary schools could opt and be selected for primary tutor positions. Some modifications in their programs would be necessary. Also this program might be supplemented by on-the-job supervision and vacation inservice courses after graduation. This program would lower the output of secondary school teachers unless additions were made to the staff and to the faculties of the National Teachers College. Some increase in output could be accomplished by increasing the existing faculty-student ratios from 1 to 13.4 to 1 to 18. The later ratio has been proposed for the Consolidated Primary Teachers Colleges.

Another source for Grade V primary teachers college tutors is the one year inservice program for Grade III and IV tutors now in operation at the National Institute of Education. In 1969 there were 35 participants; thirty-one were tutors, and four were teachers training to be primary teachers college tutors. The Director of the Institute has indicated that, except for housing, the Institute could accommodate more persons with the existing staff and instructional facilities. While it is important that the inservice function continues for tutors, expansion of the program would enable good, experienced primary teachers to qualify as primary college tutors.

Tutors at primary teachers colleges with degrees can be trained through the "primary tutor option" at Makerere University College. For undergraduates the program is for three years. Those with three years of college can take a one year primary education program.

Also, some tutors or tutors-to-be could continue to be sent abroad for undergraduate or graduate programs.

The Faculty of Education at Makerere University College and the National Teachers College, which prepare secondary school teachers, now have as the minimum qualifications for their faculty members a Master's degree from the United States or its equivalent degree from other countries. If this standard is maintained, localization of these staffs will require considerable time and money because, in part, there are no graduate programs in East Africa.

One course of action might be for the National Teachers College to admit as tutors graduate Ugandan secondary school teachers. This alternative has some feasibility because about one-third of African secondary school teachers are graduates.

Advanced degrees for Ugandan educators can be earned through the routes suggested for Tanzanian tutors.

Kenya

The corps of teachers college tutors in Kenya's 26 primary teachers colleges and two secondary teachers colleges contained, in 1967, thirty-six per cent who were Kenyan citizens.

The qualifications of the Kenyan teachers college tutors who were citizens then was as follows:

School Levels Reached	Per cent
University graduates or equivalents and above	24%
Six years secondary school plus two years teacher training or four years secondary school plus three years teacher training (Grade S-1)	32%
Four years secondary school plus two years teacher training (Grade P-1)	26%
Two years secondary school plus two years teacher training (Grade P-2) and others	18%

The Team estimates that Kenya will need an average of 54 new primary teachers college tutors each year for the next five years. Attrition has not been taken into account in this estimate.

Ministry of Education officials and other influential educators in Kenya have stated that tutors in teachers colleges should be citizens with graduate or graduate equivalent qualifications. The Team feels that aspiration is laudable but not feasible for several years to come. As can be seen from the array above, 76% of the tutor staff in 1967 who were Kenyan were below that level. Substantial inservice programs will be needed to raise the general qualifications of tutors to the proposed level.

In addition, the Team feels that it is not feasible to emphasize graduate level training for primary teachers college tutors at this time. The cost of training tutors and paying them after graduation are too high at this level. Also, the number who can qualify as graduate tutors seems inadequate to meet the number of new primary college tutors which will be needed.

It is recommended that emphasis should be placed on training tutors at the equivalent of the "S-1" level. There are two institutions in Kenya where tutors with "S-1" qualifications might be trained. Kenyatta Teachers College now prepares secondary school teachers. It is suggested that those students who have previous teaching experience in primary schools and who are interested and have appropriate personal qualifications, take professional education courses to prepare them to be primary teacher training college tutors at that college. The Kenya Institute of Education now has the responsibility for inservice training of teachers. It is suggested that experienced primary school teachers also be trained at the Institute to be primary teachers college tutors.

The localization of the Faculty of Education at University College Nairobi and the staff of Kenyatta College, because of the high percentage of non-citizens faculty members and the advanced degree requirements, probably will take a long time.

The suggestion for training of teachers of tutors in Uganda also applies to Kenya.

Conditions and Suggestions for AID Assistance

In the discussions about how teachers colleges could be staffed with citizens of each country it was suggested that tutors for the primary teachers colleges be trained through "primary education options" at particular teachers colleges and the Faculties of Education at the University Colleges in each country. These institutions have as their main function the preparation of secondary education. These institutions were suggested for the "primary education option" because their academic program is at the level appropriate for most primary college tutors; and their resources make it possible for them to add this function to their programs.

In addition, it was suggested that some primary college tutors in Uganda and Kenya could be trained at the Institutes of Education.

To make these "options" possible the Ministries of Education and the institutions would, of course, have to agree to support the idea. Also, a primary education specialist would be needed at each facility.

Earlier in this section it was indicated that the preparation of local qualified tutors to train secondary school teachers would for the near future have to be accomplished almost entirely overseas. This training program will be costly for the three governments because the costs per person are high and most of the tutors in the East African university colleges and secondary teachers colleges are expatriates.

Because the competency of tutors is so important to the quality of teacher education in East Africa it is suggested that AID assistance be provided to train teachers of primary college tutors and tutors for university and college secondary school teacher training programs.

Since the conditions in each country are different specific recommendations for AID assistance are described for each country in turn.

Tanzania

Tanzania needs such a program but for the present, this need does not rank high in the view of Tanzania Ministry of Education officials. In the case of Tanzania, action should be delayed until the Tanzanian officials have recognized the importance of developing a program in which the continuing need for a cadre of expert teachers of teacher training tutors can be developed. If and when assistance is requested this is one possible response:

1. Two participants - to study at the Master's degree level and to return as primary education specialists; one at the National College of Education and one at the University College. In addition to his teaching responsibilities the specialist at the University College might participate in research activities at the Institute of Education in such areas as the assessment of the needs of the prospective teacher, investigations of the varied backgrounds cultural, social and education that the students reflect, investigations of varying methods of carrying on practice teaching, experimentation with promising group action techniques, and experimentation with different methods of transmitting information. It is suggested that primary teachers college tutors with degrees be selected for this training.
2. Six secondary education participants (one each for the following areas: mathematics, science, English, history, geography and education) to study at the Master's degree level and to return to the National Teachers College as tutors. It is suggested that these participants be selected from experienced secondary school teachers with degrees. The program might be scheduled for two participants each year.

3. To assist each country to select and provide capable participants, replacements from the U.S.A. might be made available during the training periods on a one for one basis.

Uganda

1. Two participants to study at the Master's degree level and to return as primary education specialists, one at the National College of Education and one at Makerere University College. In addition to his teaching responsibilities at the University College the specialist might also teach in the inservice primary tutor training program at the Institute of Education.
2. Other specialists are needed for the inservice program at the Institute, but are not suggested here because they have been requested in the Curriculum Development and Instructional Materials section.
3. Provision of funds to build residential accommodations for 25 additional students for the inservice primary tutor training program at the Institute of Education.
4. Six secondary education participants (one each for six secondary school subjects) to study at the Master's degree level and to return to the National Teachers College as tutors. The sources and schedule for these tutors could be similar to that suggested for Tanzania.
5. Provision of replacements from the U.S.A. for the participants suggested above.

Kenya

At present no primary teacher education option has been established at the University College Nairobi. Also the inservice program for primary teachers college tutors has only been proposed for the Institute. The suggestions below are dependent on a commitment by the Ministry of Education for support of these programs. Facilities are available for all programs on or adjacent to Kenyatta College. Funds for facilities would be limited to the costs of remodeling the necessary structures.

1. Two participants to study at the Master's degree level and to return as primary education specialists, one at Kenyatta College and one at University College Nairobi. The shared duty schedule suggested for Uganda is applicable here.
2. If an inservice program is started at the Kenya Institute of Education a full complement of specialists will be needed. They could also have research and curriculum development responsibilities.
3. Six secondary education specialists to study at the Master's degree level and to return to Kenyatta College as tutors. The source and schedule for these tutors could be similar to that suggested for Tanzania.
4. Provision of replacements from the U.S.A. for the participants suggested above.

Regional

The effectiveness of the tutors and specialists who have been trained abroad will depend considerably on the competencies and dispositions of principals of teachers colleges and other similar administrators. Therefore it is suggested that specialist-advisors be provided for those administrators affected by the specialist and tutor training program suggested above.

This specialist should be skilled in working with individuals as well as with groups. He should be capable of winning the confidence of the director and capable also of giving the director experience in making maximum use of the creative talents of the staff. Further, he should be willing to assist the director in experimenting with administrative arrangements such as the use of various "time table" patterns, the goal being to make the time table fit the needs of the program.

At least three conditions should be agreed upon before these activities should be initiated. First, the specialists should have specific Ugandan or Kenyan counterparts to work with and their tenure in the program should be guaranteed. Second, the specialists should be additive to the staff rather than occupying a position on the Establishment List. Third, replacements of the specialists should be named and put into appropriate training programs very soon after the activities have been launched.

The specialist role suggested above is a needed activity in each of the teachers colleges in all three countries. It is suggested that the idea of extending the specialist-advisor service to those teachers colleges who would welcome the service be explored.

Section 6

RESOURCES AVAILABLE AND PROJECTED REQUIREMENTS

The approach of the Team to questions related to the resources available and projected requirements was broad when considering the economic resources and more specific when human resources and requirements were considered. The inquiry into the economic resources available was limited to obtaining the opinions of the experts and planners concerning the resources likely to be available.

It is the Team's belief, based on information gathered and studied, that the likelihood of any dramatic increase in funds to be expended for development and recurrent cost purposes is not great. It appears reasonable for the Team to assume that financial resources will increase at about the same rate the population increases. Therefore, unless unexpected increments of foreign assistance are made available, the financial resources each of the East African countries will have to allocate to education is likely to grow at a rate ranging from 2½ to 4½ per cent per year.

When this assumption is related to projected or proposed plans for development, the need for each government to exercise prudent judgment and maximum self discipline is imperative. There are demands in each country for financial resources that go far beyond the capacity of any of the countries to meet.

It is assumed that, except for funds made available from external sources, if each country is to achieve its aspirations, it must discover ways to make better use of funds available at current levels to finance its programs.

The Team believes that in terms of total resources available, Tanzania has accepted the fact that not enough funds will be available to carry out all of the projects that officials feel are necessary for Tanzania's development. Tanzania appears willing to accept the fact they may not achieve all of their aspirations. Also, they seem prepared to make firm judgments about the priorities that should be given to each of the projects proposed. They are prepared to do what they can from their own resources if other resources are not made available on terms acceptable to them and controlled by them. The willingness of senior Tanzanian officials to make unpleasant decisions coupled with their firmness and determination lead to the conclusion that given a reasonable chance, the prospects for meaningful development in Tanzania are good.

In Kenya, a Development Plan for the next five year period was not available for review - therefore no reliable estimate of Kenya's aspirations could be made. Reports indicate that Kenya is well along in the process of preparing its 1970-1974 Development Plan. The Team was advised that the Plan is in draft form and is under review in the various ministries. Available information indicates that the educational sector will not be given any larger share of national resources than were allocated in the current Development Plan.

In Uganda it was not possible to obtain any official indication of what the nature of the next Five-Year Development Plan might be. From the Ministry of Finance it was possible to obtain the opinion that the prospects of increasing the share of the Education Sector to a point above 25 per cent of the Central Government's expenditures were very dim.

The limitations of the data merit comment. An overwhelming characteristic of the data is that it is disparate. It does not lend itself to country-by-country comparisons. Even within a single country, certain data cannot be used for comparative purposes because it was categorized in a different manner from year to year. Nonetheless the data does merit consideration for indicative if not for definitive purposes.

A second characteristic of the data is its age. In 1969, it was necessary to use 1967 and prior data for predictive purposes. An urgent need in each country is to develop ways to obtain up-to-date information as a basis for making decisions about current and future problems. Within the limitations of the data, it was possible to use the process of extrapolation and interpolation to develop projections of future costs and expenditures that are probably of the correct magnitude.

Time for applying tests of accuracy, reliability and validity of information was not available. Only when glaring discrepancies appeared were any of these tests applied to the data. Therefore, although the Team does not doubt the approximate magnitude of either the statistics reported or the projections made from these statistics, it does recognize the possibility of specific variations.

Data relevant to requirements and resources were collected and have been grouped for presentation country by country. Within each country group, tables showing primary school enrollments, past and projected, teachers required and teachers being trained are followed by similar tables relating to secondary schools. Finally, expenditures for previous years and projections of expenditures for future years are shown.

Tanzania

The 1969-1974 Development Plan for Tanzania established the basis for projecting primary school enrollments in Table I. The increase in primary school enrollment is 326,690 students. This rate of increase is influenced by two factors. First, a 2.7 per cent increase in intake in Standard I is the planning target. Second, it is planned to eliminate the selection examination at the end of Standard IV and to gradually increase the number of pupils progressing through Standard VII until the

Table I

Tanzania Primary School Enrollment Projections - 1967-1974

(Public/Assisted Schools)

	I*	II	III	IV	V*	VI	VII**	Totals*
1967	157196	146943	140879	132973	60956	54036	60131	753114
1968	166276	154278	144865	138904	65282	59536	52780	775921
1969	168888	162199	149650	140519	73741	63324	57575	813410
1970	171500	162654	151333	144261	82200	71529	61423	850900
1971	180000	166458	158644	152613	98900	79734	69388	906600
1972	189000	178647	164629	156971	113200	96933	78420	977800
1973	198400	185643	174288	160690	127800	111466	95443	1056700
1974	208300	195611	181930	171782	147300	125883	109794	1140100

* Development Plan Enrollment Estimates. Enrollments for the other years interpolated

** Includes Standard VIII for 1967, 1968 years

Source: United Republic of Tanzania: *Tanzania Second Five-Year Plan for Economic and Social Development* Vol. I, p. 63

flow is normalized in 1974. The projected enrollments shown in this table have taken the input plan schedule into account. The plan is deliberate and bold and is part of a long range plan to achieve universal primary education by 1989. Adjustments required as a consequence of this policy decision are noted later.

Table II is constructed from the total enrollment data in the preceding table. An unusually high ratio of 50 pupils per teacher is applied to determine the total number of primary school teachers and the number of new teachers each year. The number of additional teachers required to compensate for attrition is added to the number required for growth to derive the total number of new teachers required each year. The data reveals that a continuously expanding primary teacher training program will be necessary to provide the teachers required. The output of primary teachers colleges must increase from 1,525 in 1969 to 2,725 in 1974. Mounting up this program is a task of significant proportions.

An estimate of the distribution of these teachers by Tanzanian classification is the subject of Table III. The description of the level of education of each classification should be noted carefully. The significant point to be made by the data on this table is that Tanzania's achievement of its growth in primary school enrollment will be accomplished largely through increasing use of teachers at lower levels of general education. In fact, one innovation is the introduction of the Grade D teacher. Teachers in this grade will have seven years of primary school education plus one year of teacher training and another year of supervised teaching. It is planned to have these teachers supervised occasionally by the teacher college staff members and regularly by the inspectors in their districts. It should be reported, also, that during this year of supervised teaching the cadet teachers will not be paid full salaries. The magnitude of the numbers involved suggests the possibility that

Table II

Estimated Tanzania Primary School Teacher Demand and Supply Sources 1967-1974

(Public/Assisted Schools)

Year	Total Enrollment Projected	Teachers Required Ratio 1:50	New Teachers Required a/c Enrollment Growth	New Teachers Required a/c Attrition*	Total New Teachers Required	Plus Supply Carried Over from Previous Years**	Total Teachers
1967	753114	15271					15271
1968	775921	15519	248	762	1010	14509	15519
1969	813410	16269	750	775	1525	14774	16269
1970	850900	17018	749	813	1562	15456	17018
1971	906600	18132	1114	851	1965	16167	18132
1972	977800	19556	1424	907	2331	17225	19556
1973	1056700	21134	1578	978	2556	18578	21134
1974	1140100	22802	1668	1057	2725	20077	22802

* 5% attrition factor for various reasons such as retirements, marriage and family, death, transfer from schools, withdrawal for upgrading, etc.

** Previous year's supply less attrition

Source: Ministry of National Education Annual Report 1966, and from p. 63, Vol. II, Second Five-Year Development Plan

Table III

Estimated Distribution of Tanzania Primary School Teachers By Grade - 1967-1974

(Public/Assisted Schools)

Year	Grade A	Grade B	Grade C	Grade D	Other	Total
1967	1338	1624	11950	-	359	15271
1968	1397	1645	12012	-	465	15519
1969	1465	1710	12607	-	487	16269
1970	1532	1804	13172	-	510	17018
1971	1632	1922	13433	600	545	18132
1972	1761	2073	13866	1270	586	19556
1973	1919	2240	14390	1957	628	21134
1974	2053	2417	15039	2609	684	22802

Notes: Grade A Teachers - Four years at secondary school (General Certificate of Education equivalent) plus 2 years of teacher training

Grade B Teachers - Two years at secondary school plus 2 years of teacher training

Grade C Teachers - Full primary course plus 2 years of teacher training

Other than A, B, or C Teachers - Education Officer III, Diploma (to Higher School Certificate), plus 2 years of teacher training. This category includes degree holders with or without a teacher training component.

Source: Draft Ministry of National Education 1967 Annual Report Data made available by Dr. W. A. Whitten, USAID/Tanzania Education Officer this plan was conceived in order to stretch the limited resources farther.

The intensity of confidence expressed by Ministry of Education officials leads the Team to the conclusion that Tanzania will make this program succeed. It should be pointed out, though, that this success may be achieved at the price of a significant lowering of the quality of primary school instruction. Quality of instruction, therefore, is not likely to go hand-in-hand with increases in quantity. The courage of Tanzania to take this chance is to be admired.

Table IV was developed to demonstrate the fact that three out of four Tanzanian primary school teachers will have only a primary school education or less if the development program is carried out as planned. When the effects of the introduction of the Grade D teacher are felt this ratio will deteriorate to the position of 4 out of 5. Again we reiterate, that unless effective supervisory countermeasures are introduced the quality of Tanzania primary education is likely to deteriorate during the 1969-1974 period. About the problems this holds for Tanzania's future we can speculate but not with enough confidence to predict because the Tanzania Ministry of Education officials are convinced that they can make this program succeed.

The estimated distribution of new primary school teachers projected year-by-year and shown in Table V was developed as a companion of Table IV. This table reveals the fact that when the plan period reaches its closing date, more than half of the new teachers introduced into the primary school system will be Grade D, the lowest level of teacher preparation in the land.

The teachers college tutor outputs required to implement the primary school expansion program are projected in Table VI. Three points appear

Table IV

Number of Tanzania Primary School Teachers - 1967 - By Grade and Sex

(Public/Assisted and Unassisted Schools)

	Grade A			Grade B			Grade C			Professional Certificates Other than A, B, C			Grand
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Total
Public Schools	941	397	1338	1355	269	1624	9245	2705	11950	241	118	359	15271
Unassisted Schools	10	16	26	29	10	39	169	48	217	88	50	138	1243
Total	951	413	1364	1384	279	1663	9474	2753	12167	319	168	497	16514

Notes: Grade A Teachers - Four years at secondary school (General Certificate of Education equivalent) plus 2 years of teacher training

Grade B Teachers - Two years at secondary school plus 2 years of teacher training

Grade C Teachers - Full primary course plus 2 years of teacher training

Other than A, B, or C Teachers - Education Officer III, Diploma (to Higher School Certificate), plus 2 years of teacher training. This category includes degree holders with or without a teacher training component.

Source: Draft Ministry of National Education 1967 Annual Report Data made available by Dr. W. A. Whitten, USAID/Tanzania Education Officer

Table V

Estimated Distribution* of New Tanzania Primary School Teachers 1968-1974, By Grade

(Public/Assisted Schools)

Year	Grade A	Grade B	Grade C	Grade D	Other	Total
1968	91	107	782	-	30	1010
1969	138	162	1180	-	45	1525
1970	141	166	1208	-	47	1562
1971	177	208	920	600	60	1965
1972	210	247	1104	700	70	2331
1973	230	271	1228	750	77	2556
1974	246	289	1358	750	82	2725

* Formula for distribution: 9% to Grade A, 10.6% to Grade B, 3% to Other and balance to Grade C or Grade D as necessary to conform with outputs from planned new Grade D teacher training programs

Note:

1. Grade B teacher training programs are planned to be eliminated. This estimate takes into account the fact that it could be reinstated. If not, the columns showing Grade A and Grade B estimates should be considered as one.

2. These estimates assume the maintenance of approximately the same teacher classification schedules as now operate, except for the effects of the introduction of the new Grade D teacher training program.

Source: Base data from Table V

to be of significance. First, the output of teachers approximates the number of teachers required as shown in the preceding table. Second, Tanzania must almost double its output from primary teacher colleges. Third, the large majority of primary school teacher outputs will be in the lowest grade - a grade not desired by the Ministry of Education Teacher Education officials but accepted as an expedient necessary to achieve the national goal set for them by key government leaders.

The planned teacher training outputs to implement the primary school expansion program are set forth in Table VI. The significant point to be made from the data of this table is that Tanzania must nearly double its output of teachers from the primary teacher training programs. Because primary teacher training ranks at the low end of the prestige scale in Tanzania, we have serious reservations about the adequacy of Tanzania's solution to the meeting of its requirements for primary school teachers.

The tutor requirements are shown in Table VII. This table includes not only the output of teachers but also gives an estimate of the total teacher training college population to be served. Using the 12:1 ratio that is customary in Tanzania, the number of tutors required have been calculated. Inspection of the last column reveals the fact that Tanzania must train from 22 to 73 teachers college tutors each year if it is to be prepared to staff these colleges with trained teacher training tutors. Further inspection makes it clear that assuming at least a two-year tutor training period is required, there is little time available to do this training if the staff is to be at post in 1972. When the fact that no allowance for attrition was made in calculating the number of additional tutors required, Tanzania's

Table VI

Planned Output of Tanzania Primary School Teachers From Teacher Training Colleges 1967-1974

(Public/Assisted Schools)

	Grade A Colleges	Grade C Colleges	Grade D Colleges	EO III* Course	Total Teacher Output
1967	694	633	-	41	1368
1968	818	359	-	54	1231
1969	900	600	-	86	1586
1970	1200	240	-	100	1540
1971	740	800	600	100	2240
1972	740	1000	700	100	2540
1973	1000	1100	750	100	2950
1974	1000	1100	750	100	2950

* Although the EO III category of teacher represents qualifications superior to the others shown, they are not shown on this position in the data above because very few of them are likely to be employed either as primary school teacher training tutors or as primary school teachers. These data were obtained from Ministry of National Education and are additive to the projections shown in the Development Plan.

Source: United Republic of Tanzania: Tanzania: Second Five-Year Plan for Economic and Social Development, Vol. I, p. 153

Table VII

Tanzania Teacher Training College Enrollments and Tutor Requirements 1967-1974

(Public/Assisted Schools)

	Teacher Training Students Enrolled*				Total Students Served	Teacher Training Tutors Required 1:12	Additional New Tutors Required Each Year**
	Grade A Colleges	Grade C Colleges	Grade D Colleges	EO III*** Course			
1967	1546	992	-	95	2633	220	
1968	1718	959	-	114	2791	233	24
1969	2100	840	-	186	3126	261	40
1970	1940	1040	600	200	3780	315	67
1971	1480	1800	700	200	4180	349	50
1972	1480	2100	750	200	4530	376	55
1973	2000	2200	750	200	5150	430	73
1974	2000	2200	750	200	5150	430	22

* No account taken of loss of enrolled students because of failure or other reasons. It is assumed that any places lost for these reasons will be filled by other students invited to join the courses.

** 5 per cent has been used for attrition to arrive at the number of additional new tutors required.

*** Although graduates of the EO III have had more years of training than the Grade A or other categories of teachers, they do not represent a promising source of primary teacher training college tutors because they are likely to be skimmed off for further education, for secondary school teaching, for administrative posts, and for entrance into University College, Dar es Salaam to study on degree programs.

Source: Data prior to 1969 extrapolated from Ministry of National Education Report data. Data for 1969 and following taken from Vol. II, Second Five-Year Plan for Economic and Social Development, Table VIII, page 153 problem becomes more serious. We do not hesitate to believe that Tanzania will provide the number of tutors required to staff their teachers colleges. However, we do recognize the probability that the staff provided will be of a lower level of training than we and the Tanzanians believe is necessary for the contribution we believe they should make.

Addressing the situation in secondary schools Table VIII estimates secondary school enrollments. The enrollments reported in this table reflect slight differences in enrollments from those proposed in the Development Plan. The enrollments estimated for Form 1 in this table are slightly lower, generally less than 100 enrollees, than those projected in the Development Plan. The total enrollment to be served shown in Table VIII, accordingly, is less than that projected in the Development Plan. The differences between the two estimates, however, is not significant.

The reason for the difference is attributable to the fact that during conversations with manpower planners and others, the likelihood of too large an oversupply of secondary graduates loomed large. Therefore, the planned inputs into secondary education was reduced slightly.

The specifications established for secondary school teachers are very different from those required of primary school teachers. Secondary school teachers at all levels and especially at the Form 5 and 6 level must present specialized preparations in particular subjects. Flexibility in acceptable placement and use of secondary school graduates is much more limited than it is in the case of primary school teachers. Ideally, the number of teachers available to teach each secondary school subject each year should be reasonably close to the number required in the subject each year. Table IX presents an informed estimate of the year-by-year requirements for each secondary school subject.

Table X shows the secondary school staffing targets by grade and by citizenship from 1968 to 1989. A massive increase in the number of

Table VIII

Tanzania Secondary School Enrollment Projections 1967-1974

(Public/Assisted Schools)

Form	1	2	3	4	5	6	Total
1967	6035	6401	5802	5004	895	814	24951
1968	7028	6735	6486	5737	1265	906	28157
1969	7110	6958	6473	6421	1392	1230	29584
1970	7285	7039	6969	6819	1488	1347	30947
1971	7460	7212	7140	6899	1584	1450	31745
1972	7635	7385	7311	7069	1680	1544	32624
1973	7810	7559	7483	7238	1776	1638	33504
1974	7985	7732	7655	7408	1872	1732	34384

Assume wastage between Forms as follows:

Form 1 to Form 2	1 %
Form 2 to Form 3	1 %
Form 3 to Form 4	1 %
Form 5 to Form 6	2.5 %

Note: These projections are consistent with those made in the 1969-74 Development Plan and by Auger and others.

Table IX

Estimated Full-Time Teacher Equivalents Required for Forms I-VI In Tanzania Public Secondary Schools Between 1969 and 1974

(Public/Assisted Schools)

Forms I-IV	1969	1970	1971	1972	1973	1974
Swahili	120	124	127	130	132	134
English	256	264	271	275	280	287
French	5	10	15	20	25	30
History	103	105	108	110	111	112
Civics	60	62	63	64	65	66
Geography	103	105	108	110	111	112
Mathematics	220	228	228	224	224	224
Biology	98	97	93	85	82	78
Physics	76	78	79	80	83	84
Chemistry	76	78	79	80	83	84
Agriculture	3	7	13	19	25	31
Engineering	14	16	19	22	26	29
Domestic Science	53	58	62	64	66	67
Commerce	6	6	12	18	24	30
Arts and Crafts	2	3	4	5	6	7
Sub-Total I-IV	1195	1241	1281	1306	1343	1375
Forms V, VI						
English Literature	18	11	11	11	11	11
History	26	17	17	17	17	17
Geography	27	23	23	23	23	23
Mathematics	31	19	22	26	28	29
Biology	26	17	18	18	19	20
Physics	30	27	29	32	35	37
Chemistry	28	25	26	28	31	33
Economics	22	10	10	10	10	10
Sub-Total V, VI	208	149	156	165	174	180
Grand Total	1403	1390	1437	1471	1517	1555

Source: Auger, George A. "Priorities for the Preparation of Secondary School Personnel in Sub-Saharan Africa--Tanzania." (Mimeographed Paper) p. 3

Table X

Secondary School Staffing Targets in Tanzania 1968-79

(Public/Assisted Schools)

	Tanzania Citizens				Total Citizen	Non-Citizen	Grand Total
Year	Graduates	Education Officer III	Grade A	Other			
1968	153	138	183	45	519	761	1280
1969	236	190	190	40	656	690	1336
1970	470	241	149	30	890	470	1360
1971	643	321	122	20	1106	300	1406
1972	775	389	108	10	1282	170	1452
1973	829	460	89	--	1378	120	1498
1974	868	533	64	--	1465	80	1545
1975	897	607	39	--	1543	50	1593
1976	915	683	23	--	1621	20	1641
1977	932	746	11	--	1689	--	1689
1978	957	783	--	--	1754	--	1754
1979	981	822	--	--	1817	--	1817

Notes:
1. Assume Graduate classification means graduates (BA's or above) from University of East Africa and from recognized overseas institutions
2. Education Officer III assumes six years at secondary school (to Higher School Certificate level), or equivalent, plus 2 years of teacher training
3. Grade A assumes four years of secondary school (to school certificate level), or equivalent, plus 2 years of teacher training

Source: Confidential Planning Document

secondary school teachers is not projected either in the Development Plan or by us. Our judgment is based upon demonstrated evidence that Tanzania is prepared to exercise the controls necessary to curtail inputs into any particular element of the public sector of the economy.

This table shows the anticipated rapid increase in graduates placed in secondary schools. It makes clear the planned rapid reduction of Grade A teachers in secondary schools. The places vacated by them will be filled by the better educated Education Officer III group.

The determination of the Government of Tanzania to be self-sufficient in its schools is made clear when the plan for a rapid reduction of non-citizen secondary school teachers is reviewed. Tanzania's plan is to reduce its number of non-citizen teachers to 80 or 5 per cent of the total staff. We believe that Tanzania will carry out its plan subject to one reservation.

Tanzania adopted the policy of bonding students who were the recipients of government funds to pursue their education. In this case, any student after the 1966 year who was provided government support for his education above the Form 4 level signed an agreement to serve the Government of Tanzania at its direction for a period of years equal to the number of years of education given him. In the short run, this policy assures the Government of Tanzania of the availability and opportunity to place personnel, in whom it makes a financial investment, in the positions the government believes are most essential. In the long run, however, the government may face problems of turnover of personnel when the bonding period has expired, particularly if the education has been provided at the collegiate level and if placement opportunities in either the private or the parastatal sector should develop.

Table XI defines Tanzania's schedule for replacing expatriates with Tanzanian teachers (localization). It is self-explanatory.

Table XII shows the limits of undergraduate enrollment that have been placed upon University College, Dar es Salaam. The decision has been made to make 60 per cent of the new places in the University College available to students pursuing courses in science fields and the balance are admitted for study in the arts fields. This enrollment constitutes the primary source of graduate secondary school teachers. In light of the bonding and manpower allocation procedures of Tanzania a specific prediction of allocation by subject is untenable. It can be said that there should be a sufficient supply of University College graduates to meet the staffing schedule targets shown on Table X.

A comparison of the expenditure targets established in the 1969-1974 Development Plan with the estimates of expenditure made by the Team are shown in Table XIII. The Team estimate of total expenditures exceeds the Development Plan estimates for the plan period by approximately 10,000,000 shillings. The Team does not consider this discrepancy one of great significance. However, the educational sector items could be serious.

The difference in expenditure estimates projected for both secondary education and teacher training is substantial. We feel confident that if these programs are permitted to expand to the levels proposed, the expenditures will be reasonably close to the estimates we have made. Tanzania may have to make some adjustments later in the plan period.

Table XIV is presented to compare the Capital Expenditures in the education sector estimated for the First Five-Year Plan with those proposed for the Second Five-Year Plan. The data shown under Note 1 of that table, i.e., that the education sector spent only 51.6 per cent of the plan estimates, indicates that it is likely that the Ministry of Education can secure sufficient funds to meet the expenses of the growing educational system.

Table XI

Localization of Tanzania Secondary Teaching Force

(Public/Assisted Schools)

Year	Total Teachers Required	Total Citizens Available	Balance Non-Citizens
1969	1403	683	720
1970	1390	910	480
1971	1437	1130	307
1972	1471	1300	171
1973	1517	1397	120
1974	1555	1475	80

Note: There is a discrepancy between total teachers required as shown here and in the Development Plan. These data constitute larger numbers required because a small factor of wastage is applied. The difference in number each year is small, ranging from 10 in 1974 to 57 in 1969.

Sources: Data for Total Teachers Required from Auger, George A., "Priorities for the Preparation of Secondary School Personnel in Sub-Saharan Africa--Tanzania." (Mimeographed Paper) p. 3

Data for Total Citizens obtained by applying percentages of localization derived from p. 151 of Volume II of the 1969-74 *Second Five Year Plan for Economic and Social Development*.

Table XII

Estimated University Enrollments U. C. Dar es Salaam, 1967-74

Year	Estimated Enrollment
1967	1068
1968	1272
1969	1254
1970	1419
1971	1584
1972	1749
1973	1914
1974	2079

Assumptions:

1. Maintenance of post degree enrollment of 10% of the estimated undergraduate enrollment is likely
2. Enrollment limits set on undergraduate p. 69, Volume II of Second Five-Year Development Plan are likely to be maintained
3. Pass through failure, transfer or other reasons not taken into account
4. Unit costs per student prevailing in 1966 can continue to be maintained throughout this plan period

Note:

Of the estimated enrollment during the 1969-1974 plan period an annual intake of approximately 180 degree seeking students and 100 Diplomates (one post-graduate year) were programmed to meet teacher education needs.

Table XIII

Comparison of Tanzania Development Plan and Team's Estimate of Recurrent Costs-1966/67-1973/74
(in shillings)

(Public/Assisted Schools)

Sector	1966/1967	1968	1969	1970	1971	1972	1973	1974
Primary Schools								
A. Devplan Est.	*	*	*	141600000	153645000	166843000	180831000	195831000
B. Team Est.**	123292293	127026027	133163351	139300839	148419486	160072364	172992357	186631037
Secondary Schools								
A. Devplan Est.	*	*	*	51847000	53126000	54574000	56276000	58178000
B. Team Est.**	53344240	60198540	63249409	65735856	67869540	69748000	71630212	73511617
Teacher Training								
A. Devplan Est.	*	*	*	14470000	15964000	16909000	18125000	19431000
B. Team Est.**	14637584	15515950	17378309	21014078	23237790	24182868	28630292	28630292
University College								
A. Devplan Est.	*	*	*	23080000	27696000	31475000	35519000	38492000
B. Team Est.**	20859290	24843648	24492087	27714730	30937373	34160016	37382659	40605302
Total Recurrent Cost								
A. Devplan Est.	-	-	-	230997000	250431000	269802000	290751000	311392000
B. Team Est.**	212133407	227584165	238283156	253765503	270461189	288164055	310635500	329378248

* Data showing planned expenditures for 1967, 1969 were not available

** These estimates are based upon a formula developed from an analysis of both recurrent expenditures and revenues in the 1966 Ministry of Education Annual Report.

Table XIV

Capital Cost of Planned Tanzania Central Government Development Expenditures For Education 1969/70-73/74
(in shillings)

(Public/Assisted Schools)

	1969/70	1970/71	1971/72/73/74	Total Second Plan	Per Cent Share Education Sector	Per Cent Share Total Plan
Primary Education	15977000	20899000	84340000	121216000	40.8	4.4
Secondary Education	23377500	28502000	35362000	87241500	29.4	3.2
Technical and Commercial	900000	3230000	4900000	9030000	3.0	0.3
Training of Teachers	9380000	11946000	11124000	32450000	10.9	1.1
University Education	2525000	11142000	16917500	30584500	10.3	1.1
Other Projects	2162000	1935000	6465000	10562000	3.6	0.4
Culture and Antiquities	1890000	3119000	1043300	6052300	2.0	0.2
Total	56211500	80773000	160151800	297136300	100.0	10.8

Notes: 1. Second Five-Year Plan Expenditures should be considered in the light of Plan Performance during First Five-Year Plan as shown below: (p. 2, p. 10)

Estimates of Plan Performance Education Sector 1964/69 (Expenditures)

1964/68 Actual Expenditures	1968/69 Estimated* Expenditures	1964/69 Estimated* Expenditures	1964/69 Planned Expenditure Including Three Year Plan Carry-over	Relative Share of Planned Expenditure of Total	Estimated 1964/69 Expenditure as % of Total	Plan Performance
138390000	10982000	149372000	289349000	18.06	11.28	51.6

* Government of Tanzania Estimates

Table XIV (Continued)

2. Major Components of Educational Sector of Second Five-Year Plan provides for: (p. 64-72)

   a. Opening no less than 1900 Standards I
   b. Opening only 30 new Forms I will require:

      1. Building of 8 new schools
      2. Enlargement of 12 existing schools
      3. Provision in a number of schools of special premises for agriculture, commerce, manual crafts and domestic science

   c. Enlarging Dar es Salaam Technical College and building a second Technical College at Mwanza
   d. Additions to Dar es Salaam Technical College and the College of Business Education
   e. Enlargements of 8 Teacher Training Colleges and construction of two new Teacher Training Colleges, one for 360 and one for 400 if funds are available to provide for the pre-service training of an additional 1,410 teachers
   f. At University expanding the Faculty of Medicine, starting of Faculty of Agriculture at Morogoro, and, starting a Faculty of Engineering in 1972 as well as modifications of student residential facilities (double bunking, rearrangement of fittings and sanitary fittings) and 2 new buildings on the campus

Source: Tanzania Second Five-Year Plan for Economic and Social Development 1st July 1969-30th June 1974. Volume II: The Programmes. Dar es Salaam: The Government Printer, 1969 (Page references as noted in the text.)

In the opinion of the Team, however, Tanzania has few resources to devote to programs that are not closely related to sharply defined priorities. Tanzania must establish the priorities. The Team cannot.

Uganda

The Team's factual background for its work in Uganda was very skimpy. This condition prevailed not because of any evident unwillingness to share or to withhold. Rather, it would appear that the machinery was so cumbersome that data gathering jobs just couldn't be completed. It could be, though, that the people managing the development of schools were so overwhelmed by the magnitude of their tasks that they didn't know how to manage them. They didn't know what kind of questions to ask to obtain the information necessary to make sound decisions - perhaps they didn't know information was available. The net result was that in Uganda, the Team was able to obtain only the sketchiest of information on which projections might be based.

We should hasten to say that at no time did the Team meet hostility or resistance as it sought hard factual information. Officials, in every case, were open, frank and forthright. It cannot be denied that the Team left Uganda with a belief that much improvement was necessary; but at the same time, they developed an underlying belief that Uganda's prospects were promising under the right conditions.

The fundamental conditions described above should be borne in mind by the reader as he considers the data developed and the observations of the Team. In short, the tables that follow are viewed by the Team with a considerable amount of doubt concerning their validity. Yet, for the purposes of this inquiry, the very data themselves serve to illustrate the complexity of the problems related to providing assistance in Uganda.

External donors must decide for themselves whether or not they must have the precise information they desire before they can, in good conscience, proceed with providing assistance to Uganda. It is the Team's view that high and influential officials in Uganda are well aware of the fact that Uganda has problems, but that at the same time they are very uncertain about what to do about the problems. This situation, in the Team's view, therefore, calls neither for retrenchment nor abandonment, but compels the donor to accept the facts of the case as they are and to concentrate their assistance efforts in those areas that appear to be critical, areas where the opportunities for improvement in terms of the fundamental goals or problems and the readiness of officials to consider problems and to act on them appear to be most promising.

Keeping in mind the fact that of necessity the basic data available for the Team's use was very limited, that the Team had no opportunity to validate or corroborate the basic statistical data, there are many "guess" hazards in the projections developed. In the Team's opinion, the observations that follow are sound. We turn, then, to the data.

Since Uganda is in the last year of its present Development Plan, and, since no precise information was available concerning the next Development Plan (other than orders of magnitude), the projections of primary school enrollment shown in Table XV should be reviewed with caution. These projections accepted the proposition, stated by the Government of Uganda in its first Development Plan, that inputs of enrollment into the primary school had reached a plateau and that they were likely to be held down in the future. Note should be taken of the fact that Uganda's first Development Plan target of 200,000 additional primary places will not be achieved. Only 67.2% of the plan targets are likely to be met in the government and aided schools in the Team's

Table XV

Estimated Uganda Primary School Enrollment

(Aided Schools Only)

Year	Standard I	II	III	IV	V	VI	VII*	VIII**	Total
1964***	106313	94140	81806	73905	64924	61432	23725	19699	525917
1965***	115835	98264	93447	80420	70642	68225	27063	24560	578546
1966***	122326	104756	99321	87740	76735	73312	42031	27325	633546
1967***	118935	106416	101480	90272	79655	72055	72826		641639
1968	120124	107042	103756	96913	84404	78858	70614		661711
1969	121252	108112	104366	99089	90614	83560	77281		684274
1970	122465	109127	105409	98715	92648	89708	81889		701961
1971	123690	110219	106399	100666	92299	91722	87914		712909
1972	124927	111321	107464	101611	94123	91376	89888		720710
1973	126176	112343	108538	102628	95006	93182	89548		727421
1974	127438	113558	109534	103654	95958	94056	91318		735516

* Includes former Junior Secondary I

** Includes former Junior Secondary II and Junior Secondary III. The latter classification represents a small number declining from 309 in 1964 to 111 in 1966

Notes: 1. The Junior Secondary classification was eliminated entirely by 1967

2. The Development Plan's target (1966-1971) was to establish 200,000 additional places. The Team's estimate of enrollments during the plan period will provide 134,363 additional places or 67.2% of the Plan's target.

Source: ***Ministry of Education Planning and Statistical Unit. (data from a secondary source) judgment. The enrollment projections presented in this table assume a 1% increase in entries into Standard I and reflect the effects of that increase on the higher standards in subsequent years, assuming that the pupils would progress through these grades in the future in about the same numbers that they did in the past.

However, one note of caution is imperative. Uganda has an enrollment in private schools that is estimated to be about the same size as the public school enrollment. Should political pressure develop for the burden of this enrollment to be assumed by the government, then the projections presented would be useless. Hence, every projection the Team developed that is based on primary school enrollment would be upset also.

In order to present a picture of the composition of Uganda's primary school teaching staff, Table XVI was prepared. The data in the table make two facts clear. First, in 1967 there were few African teachers in Uganda's primary schools who had received an education above the Higher School Certificate level - only 220 out of 18,530 teachers. Second, the proportion of Uganda African primary school teachers with little more than a primary school education is very large, i.e., 37 per cent had only a primary school education; 85 per cent had not been in school beyond the second year of secondary school and had not passed the school leaving examination at that level.

Table XVII was developed from the enrollment projections set forth in Table XVI. Three different ratios of students per teacher are presented to show the number of teachers required by the enrollment because the Team doubts the validity of the data report available for its use. The pupil teacher ratio resulting from calculations based upon annual report data is 33.31:1. Because this ratio is uncommonly low in comparison

Table XVI

Uganda Primary School Teachers by Academic Qualification, Race and Sex - 1967

	Africans			Asians		Europeans		Total			Grand Total
Academic Qualification	M		F	M	F	M	F	M		F	
Honours Graduate				1			1	1		1	2
Graduate	1			4			2	5		2	7
Honour Graduate Non-Recognized	1			17	4		1	18		5	23
Ordinary Graduate Non-Recognized			2	54	21	1		55		23	78
Higher School Cert.	186	(1)	29	9	4	7	51	202	(6)	84	287
School Cert.	871	(1)	106	69	160	6	42	946	(1)	308	1255
Asian Matriculation	2		-	130	70	-	1	132		71	203
Sec Ed w/no Sch. Cert.	1313	(3)	220	14	31	-	3	1327	(3)	254	1584
Jr. Leaving Cert.	2500	(2)	873	-	10	-	2	2501	(2)	885	3388
W/no JSL Jr. Sec. Ed.	3738	(7)	1686	2	7	-	1	3740	(7)	1694	5441
Prim. Ed. only	4850	(1)	2091	1	2	-	1	4851	(1)	2094	6945
Academic Qual. Not Stated	28	(1)	7	1	-	-	6	29	(1)	13	43
Total	13490	(16)	5014	302	309	15	111	13807	(16)	5434	19257

	Average Salaries	No. Persons	Average Annual Salary (In Uganda pounds)
African	Male	13413	235.8
	Female	4980	217.8
	Sex Not Stated	16	188.1
Asian	Male	302	725.6
	Female	309	513.5
European	Male	12	1039.8
	Female	109	681.7

( ) indicates sex not stated

Source: Ministry of Education, Annual Report, 1967 (in draft)

Table XVII

Uganda Primary School Teachers Employed or Required 1964-1971

(Aided Schools Only)

	Primary School Enrollment	Primary Teachers Required		
		Ratio 33.31:1	Ratio 40:1	Ratio 50:1
1964	525917	15789	13418	10519
1965	578546	17369	14464	11571
1966	633546	19020	15842	12671
1967	641639*	19257*	16041	12833
1968	661711	19866	16543	13235
1969	684274	20543	17107	13686
1970	701961	21074	17549	14040
1971	712909	21403	17823	14259
1972	720710	21637	18018	14415
1973	727921	21838	18186	14549
1974	735710	22087	18393	14715

* Actual enrollment and number of teachers employed this year

Note: The Team suspects the validity of the 33.31 students for each teacher; therefore, two additional ratios have been shown.

with other African countries, two other ratios were constructed and are presented for comparison. The differences in teacher requirements become very significant as the higher ratios are used. The Team did not have either the time or the data with which to eliminate this anomaly; however, it should be cleared up because it is so essential to acceptable planning.

The number of teachers required by the enrollment was taken from Table XVII as a base in order to estimate the number of additional teachers Uganda will require year-by-year through 1974. Table XVIII is constructed from this basis. The point of significance in Table XVIII is that if Uganda does maintain its policy of limiting the number of children entering Standard I, the number of primary school teachers it will need will decline, regardless of the pupil teacher ratio used.

The consequence of the input limiting policy is that the percentage of school age children actually in school will also decline. Thus, regression from universal primary education will not be a pleasant consequence to report.

Another factor which constitutes a very important unknown for both the Government of Uganda and the Team is the large number of private schools. No trustworthy estimate was available indicating either the number and enrollment of these schools or how long they will survive. Limited investigation tends to indicate that these schools appear and disappear as opportunities for profit wax and wane. The fact that they exist and are estimated to serve an enrollment, at either the primary or the secondary level, nearly as large as the enrollment of the government schools constitutes a very important factor that could disrupt any plan the Government of Uganda makes.

Enrollment and the number of teachers required in primary schools constitute the basic data for arriving at both the number of teacher

Table XVIII

Additional Uganda Primary School Teachers Required Using Three Ratios 1964-1971

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Total Primary Enrollment	525917	578546	633546	641639	661711	684274	701961	712909	720710	727421	735710
Ratio 33.31*											
New Teachers a/c Growth		1580	1651	237	609	677	531	329	234	201	249
New Teachers a/c 5% Attrition		786	869	951	963	994	1028	1054	1071	1082	1092
Sub Total New Teachers		2366	2520	1188	1572	1671	1559	1383	1305	1283	1341
Total Teachers Required	15789	17369	19020	19257	19866	20543	21074	21403	21637	21838	22087
Ratio 40:1*											
New Teachers a/c Growth		1046	1378	109	502	564	442	274	195	168	207
New Teachers a/c 5% Attrition		674	724	793	802	827	855	878	892	901	910
Sub Total New Teachers		1720	2102	902	1304	1391	1297	1152	1087	1069	1117
Total Teachers Required	13418	14464	15842	16041	16543	17107	17549	17823	18018	18186	18393
Ratio 50:1*											
New Teachers a/c Growth		1052	1100	162	402	451	354	219	156	134	256
New Teachers a/c 5% Attrition		526	578	634	642	662	685	702	713	721	728
Sub Total New Teachers		1578	1678	796	1044	1113	1039	921	869	855	984
Total Teachers Required	10519	11571	12671	12833	13235	13686	14040	14259	14415	14549	14715

Reference: Constructed from enrollment data shown in Table XV

* Students enrolled per teacher. These three different ratios are shown because the team believes that the 33.31:1 ratio produced by using limited Ministry of Education data is not correct. The Team was unable to obtain the data required to verify or deny this belief; therefore, two additional ratios have been used as options to show the number of additional teachers required.

training tutors required and the number that should be enrolled in teachers colleges. Table XIX indicates the number of additional teachers college tutors required to insure teachers for the growing primary school enrollment. The data reveal from 10 to 13 new teachers college tutors will be required each year if the primary school pupil teacher ratio remains 33.31:1. Should the ratio be increased, the number of new tutors required each year will be less.

The enrollment predicted for the primary teachers colleges is based only upon the number of additional primary school teachers required each year. Table XX projects the primary teachers college enrollment necessary to produce the number of primary school teachers required. The projections in this table are consistent with the Government of Uganda's plan to consolidate a number of small teachers colleges into two larger, more economical schools, and, to move toward placing larger enrollments in the higher level Grade III teachers colleges. It is predicted that the total teachers college enrollment will increase through the years and a higher level teacher will be available. The size of the growth projected, however, is so small that, as scheduled, the teachers colleges can make only a very small contribution toward raising the level of academic preparation of primary school teachers. At the pace projected, Uganda will need 40 years to train or upgrade enough teachers to eliminate those who have less than a basic four-year secondary school education.

Table XXI describes the race and academic qualifications of Uganda primary teachers college tutors. It should be noted that less than 10 per cent of the African teachers college tutors in 1967 had a bachelors degree or more. More than one-half the staff was European. If the goals of Ugandanization of the primary teachers college tutor staff is to be achieved, Uganda will have to train at least 160 new tutors. If the goal is raising the academic level of the tutors to a full secondary education

Table XIX

Additional Primary TTC Tutors Required for Growth of Primary School Population 1965-1974

Based on Three Different Pupil-Teacher Ratios

	Primary Pupil-Teacher Ratio 33.31:1		Primary Pupil-Teacher Ratio 40:1		Primary Pupil-Teacher Ratio 50:1	
	New Teachers Required	New Tutors Required*	New Teachers Required	New Tutors Required*	New Teachers Required	New Tutors Required*
1965	2369	18	1720	13	1578	12
1966	2519	19	2120	16	1678	13
1967	1188	9	902	7	796	6
1968	1572	12	1304	10	1044	8
1969	1671	13	1391	11	1113	9
1970	1559	12	1297	10	1039	8
1971	1383	11	1152	9	921	7
1972	1305	10	1087	9	869	7
1973	1283	10	1069	8	855	7
1974	1341	11	1117	9	984	8

* The calculation of the number of new tutors required is based upon the use of the ratio of 13.4 students to each tutor. This ratio is consistent with Uganda's records but it is lower than Uganda hopes to maintain for both economy and efficiency.

Table XX

Estimated Enrollments in Uganda Primary Teacher Training Colleges 1964-1974

	A Grade II Colleges					B Grade III Colleges				
Year	Year I	Year II	Year III	Year IV	II Total	Year I	Year II	Up Graders	III Total	PTTC Total
1964*	929	929	887	809	3554	189	203	66	458	4012
1965*	907	932	878	840	3557	165	161	67	393	3950
1966*	849	913	868	870	3500	167	146	49	362	3862
1967*	850	843	877	902	3472	229	154	40	423	3895
1968	884	827	833	831	3375	211	224	95	530	3905
1969	880	868	827	830	3405	236	210	100	546	3951
1970	900	865	855	825	3445	400	236	100	786	4231
1971	900	890	860	850	3500	550	390	100	1040	4540
1972	583	890	880	855	3208	800	485	100	1385	4593
1973	581	575	880	870	2906	900	890	100	1890	4796
1974	600	575	565	870	2610	1400	890	100	2390	5000

Note: Estimates for the 1970-74 years indicate the number of primary school teachers Uganda must educate in order to meet its requirements for trained teachers

Source: Uganda Ministry of Education, Annual Report, 1967 (preliminary draft)

Table XXI

Uganda Teachers College Tutors by Race and Academic Qualification 1967

Qualifications	African	Asian	European	Total	Per Cent of Total
Honours Graduate	3	1	35	39	12.3
Graduate	10	3	45	58	18.3
Grades I-III (Asian)	--	3	--	3	.9
Grade V or equal	19	4	70	93	29.3
Grade IV	61	1	--	62	19.6
Grade III and Lower	45	4	2	51	16.1
Grade Not Stated	3	-	8	11	3.5
Total	141	16	160	317	
Per Cent of Total	44.2	5.0	50.5		

Notes: 1. Grade II Standards: Primary 7 plus 4 years of teacher training

2. Grade III Standards: CSC plus 2 years teacher training

3. Grade V Standards: Secondary School Teacher production either GSC plus 3 years teacher training or HSC plus 2 years of teacher training

4. Of the tutors employed, 63.1% are men and 36.9% are women

5. 75.2% of the African Teachers College tutors must be given additional training to raise them to Grade V, Uganda's minimum standard for African Teachers College Tutors

Source: Ministry of Education, Annual Report, 1967 (in draft)

or more, 110 more new tutors will have to be trained. Unfortunately, the Team must report its belief that it found little sense of urgency on the part of Ugandan officials concerning either of these two goals.

The estimates of growth in the Uganda secondary schools are presented in comparison with Development Plan targets in Table XXII. The comparisons represent a very serious cause for concern. If growth in the future proceeds as it has in the past, Uganda will exceed its target for inputs into Form 1 by some 3,500 students in Forms 5 and 6 by some 3,000 and in total by something more than 16,500 secondary school students. The extent of the growth in this sector simply means that the funds expended because of lack of control in this sector cannot be made available for use in other more urgent sectors, teacher training for example. The Team must report that it found little disposition among Ugandan officials to try to control this bulge. That fact causes the Team to question the desire or ability of Government officials to make the decisions necessary to stay within planning limits when they are confronted with popular or political forces.

The secondary school enrollments projected in Table XXII have been used to estimate the number of secondary school teachers required. Table XXIII shows this estimate. The projections indicate that 1,535 additional secondary school teachers will be needed to teach students during the 1970 to 1974 period. No calculation was made of the number of additional teachers required if attrition were taken into account. The 10 per cent attrition rate that was suggested appeared to be inordinately high. However, if a 5 per cent attrition rate is applied, approximately 235 more teachers will be required. Furthermore, because the lateral transfer of secondary school teachers from the Government schools to the private schools is such an unknown but important factor, and reliable

Table XXII

Uganda Secondary School Enrollment - 1964-1974
(Plan Targets and Performance to Date)

	1964	1965	1966	1967	1968*	1969*	1970*	1971*	1972	1973	1974
Secondary I	4100	6106	6504	8468	9997	11287	12577	13867	15157	16447	17737
Second Five-Year Devplan Target			(6200)	(7500)	(7710)	(7920)	(8130)	(8340)			
Secondary 2	3047	4488	6057	6537	8457	9747	11005	12263	13521	14778	16036
Secondary 3	2494	3099	4413	5936	6457	8154	9406	10620	11834	13048	14261
Secondary 4	2068	2499	3029	4239	5629	6328	7991	9218	10408	11598	12787
1-4 Enrollment	11709	16192	20008	25180	29540	35516	40979	45968	50920	55871	60821
1-4 Enrollment Devplan Target			(18500)	(22700)	(26100)	(28000)	(29900)	(30500)			
Secondary 5	575	608	966	941	1198	1857	2088	2637	3042	3435	3828
5 Devplan Target			(1050)	(1110)	(1350)	(1560)	(1680)	(1800)			
Secondary 6	368	523	579	904	899	1114	1727	1942	2453	2829	3195
5-6 Total Enrollment	943	1131	1545	1845	2097	2971	3815	4579	5495	6264	7023
5-6 Devplan Target			(990)	(1050)	(1110)	(1350)	(1560)	(1680)			
5-6 Devplan Target			(2040)	(2160)	(2460)	(2910)	(3240)	(3480)			
Total Secondary Enrollment	12652	17323	21553	27025	31637	38487	44794	50547	56415	62135	67844
Devplan Secondary Target Enrollment			(20540)	(24860)	(28650)	(30910)	(33140)	(33980)			

* Enrollments for 1968, 1969, 1970 and 1971 estimated

Source: Ministry of Education Planning and Statistical Unit (data from a secondary source)

Table XXIII

Uganda General Secondary School Teachers Employed or Required 1963-1974

(Aided Schools Only)

Year	Total General Secondary School* Enrollment	Number of Teachers**	Additional Teachers Per Year**
1963	10195	492	
1964	12652	610	181
1965	17323	835	225
1966	21553	1039	204
1967	27025	1302	263
1968	31637	1512	210
1969	38487	1855	343
1970	44794	2159	304
1971	50547	2436	287
1972	56415	2719	283
1973	62135	2995	276
1974	67844	3380	385

* Does not include Technical School, College of Commerce or other special secondary schools

** Estimated using ratio of 20.75 students per teacher (derived from 1967 data)

Note: If these estimates are valid, Uganda will need 934 additional teachers to meet its 1969, 70 and '71 actual requirements. If a 5% attrition factor is taken into account, the number required during this same period would be 1211. During the 1972-74 period an additional 944 teachers will be required plus 47 more if attrition is to be taken into account.

Source: Enrollments as shown in Table XXII information about the extent of that movement is not available, the Team was unwilling to make estimates of attrition. The variables are so many and the time for verification of facts was so limited that the Team was unwilling to prepare estimates in which it had little confidence.

Table XXIV was developed to indicate the situation among secondary school teachers with respect to Ugandanization. It will be noted that 62.7 per cent, 2 out of 3 teachers, of the staff is European.

A projection of the possible growth in Ugandanization has been made in Table XXV. Since this table is a construct, no additional comment is necessary except to point out that if the projection is accurate, in the 1974 year, Uganda would have reached the position of 44.8 per cent Ugandanization. This is a slower rate of progress toward the Africanization goal than is acceptable to many other African countries. The Team's impression is that if the level of production remains as high as is indicated, Uganda is prepared to accept the projected rate of localization.

Valid comparisons of the actual or projected expenditures with the expenditures proposed in the Development Plan for the years 1971, 1972, 1973 and 1974 were not possible; therefore, the estimates shown in Table XXVI may have little meaning for these years. Without the benefit of specific information about future plans, the Team can defend its estimates only by saying that they appear to be reasonable and that they are likely to be in the correct neighborhood.

It should be pointed out, also, that because of the form in which the data was available, it was not possible to apply comparative techniques to the expenditures for the Makerere University. A 230 per cent increase in these expenditures is entirely possible. This is a significant increase.

Comparative data was not available for expenditures for the Technical Schools, Farm School, Technical College or College of Commerce; therefore,

Table XXIV

Uganda Secondary School Teachers by Race and Qualification, 1967*

Qualifications	African	Asian	European	Total	Per Cent of Total
Honours Graduate	17	6	312	335	25.7
Graduate	60	12	336	408	31.3
Grade I-III (Asian)	--	8	2	10	.7
Makerere Old Style	50	201	109	360	27.6
Grade IV and Lower	4	--	--	4	.3
Technical Teacher	15	1	17	33	2.5
Domestic Science Teacher	5	4	7	16	1.2
Others	82	20	34	136	10.4
Total	233	252	817	1302	
Per Cent of Total	17.9	19.4	62.7		

* Includes staff of National Teacher Training College, Kyambogo

Source: Ministry of Education, Annual Report, 1967 (in draft)

Table XXV

Estimated Rate of Ugandanization of Secondary School Teaching Staff 1967-1974

	1967	1968	1969	1970	1971	1972	1973	1974
A. Teaching Staff Required*	1302	1512	1855	2159	2436	2719	2995	3380
B. Racial Composition of Staff*								
African	233	341	448	581	763	950	1216	1513
Asian	252	264	276	290	310	330	359	392
European	817	907	1131	1288	1363	1439	1420	1475
C. New Staff for Next Year	210	343	304	277	283	276	385	
D. Source of Next Year's Staff								
Grade V*	(88)	(87)	(115)	(105)	(110)	(150)	(180)	
African	79	78	104	95	100	135	162	
Asian	9	9	11	10	10	15	18	
UC Makerere*	(32)	(32)	(32)	(97)	(97)	(145)	(150)	
African	29	29	29	87	87	131	135	
Asian	3	3	3	10	10	14	15	
European or Other Sources	(90)	(224)	(157)	(75)	(76)	0	(55)	

Note: 1. Each category of section D should be added to the same category in section B to establish the staff required for the next year.

2. Numbers in parenthesis ( ) indicate total group of each class available at the end of each year to serve in meeting the staffing requirements for the succeeding year.

Sources:
- * Staff Required - From Table XXIII
- * Racial Composition extrapolated from data on Table XXIII
- * Available Resources - Kajubi, W. Senteza, "Priorities in the Supply and Preparation of Secondary School Teachers in Uganda." (Mimeographed paper)

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approximately straight line projections which were consistent with the Development Plan were made for these institutions.

Table XXVII is presented in order to give readers information concerning the pay schedules of both civil servants and teachers. These schedules were used to prepare estimates of the costs of salaries for various programs. It should be pointed out that, by legislative edict, these schedules are to be maintained until 1971. However, another legislative edict could be passed and the conditions might then be changed.

Three significant facts from Table XXVI should be noted:

1. The Government's estimate of recurrent expenditures for primary schools are likely to be within £124,000 (2 per cent) of the estimates. That's planning and that's control!
2. Recurrent expenditures for secondary schools are likely to exceed the Development Plan estimates by more than 37 per cent. Either estimating or control ought to be better than that!
3. Recurrent expenditures for teacher training are likely to exceed the Development Plan by 39 per cent, the large portion of which is programmed for the Grade III training program. Better estimates ought to be possible!

Kenya

Problems encountered in studying Kenya's resources, plans and prospects were similar to those found in Uganda. There was a 1964-1970 Development Plan that was of some use for comparative purposes. The 1969-1974 Development Plan, although in the clearance for approval process, was not available for public use because it had not been passed upon and approved by the Cabinet and the various ministries.

Table XXVII

Comparison of Salaries of Uganda Teachers and Civil Servants - 1966

Classification	Level	Formal Education Completed	Salary Per Year (Uganda Pounds) Minimum	Salary Per Year (Uganda Pounds) Maximum	Mid-Point	Number of Increments
A. Teacher						
Secondary	Honours Degree	17	798	1752	1272	22
Secondary	Ordinary Degree	17	738	1572	1155	21
Grade V	Higher School Certificate & T2*	16	612	1080	846	16
Grade III, IV	Cambridge School Certificate & T2*	14	300	828	564	24
Grade II	Junior School Certificate & T4*	12	189	354	272	13
Grade II**	Junior School Certificate & T2*	10	180	354	267	14
Grade I	Primary School Certificate & T2*	8	132	276	204	17
B. Civil Servant						
Grade A	Honours Degree	17	798	1791	1179	23
Grade G3-1	Ordinary Degree or Equivalent	17	687	1671	1179	23
Executive Officer	Higher School Certificate	14	473	1671	1072	32
Clerk	Cambridge School Certificate	12	208	598	403	22
Clerical Assistant	Junior School Certificate	8	114	200	157	11

* Number following the letter T indicates the number of years of teacher training

** The Grade II teacher training program currently operating

Source: Knight, J. B., "Salary Structures in Uganda." (EDRP 106) Makerere Economic Research Seminar, 1966. (Mimeographed) Quoted from secondary source.

There were more Annual Reports of the Ministry of Education in Kenya than in Uganda but the use of these reports for comparative purposes was somewhat limited. Reporting classifications were frequently shifted from year to year making direct comparisons impossible. However, whenever comparative data was available, it was used.

In Kenya the reports often were not clear, particularly in the expenditure category, about the amount of expenditures made by local governments. Often fee revenue was not stated precisely enough to use for comparisons. Also, the proportion of expenditures made by Central Government and Local or Regional Governments was changed. Thus, estimating expenditures in the future was made precarious because of current discussions about further shifts. The estimates that were made reflect the belief that the Central Government of Kenya is going to continue to bear a larger share of the cost of education, particularly the costs of primary schools.

A factor that made the forecasting of both enrollments and expenditures uncertain was the Harambee schools. These schools enroll a population nearly as large as that enrolled in the Government and Aided Schools. Many of the Harambee schools built and opened in a burst of public spirit have become expensive burdens for the initiators. The natural move is to turn to the government, first for aid and later for take-over by the government. It appears that the rate of take-overs is determined by the political power of the promoter. Thus, there is no reliable formula available to use for estimating what action is likely to be taken. The Team, therefore, had to make its best guess concerning what might happen.

There were indications, also, of serious concern in ministries outside the Ministry of Education over the problem of the unemployed and unemployable school leavers after Standard VII. They are not able to get places in secondary schools and they cannot secure employment. Intimations were given that a massive training program outside the Ministry of Education might be developed. If these suggestions turned into programs of considerable magnitude, they could very easily cut into the share of Central Government funds that would be made available to the Ministry of Education.

Therefore, although the Team has confidence in its estimates of both enrollments and expenditures if conditions remain in their current status, it does have grave reservations concerning whether or not it has interpreted future developments correctly. Consequently, the Team believes that its estimates are generally of the correct magnitude, but that its estimates could be either a bit large or too small in some of the details. In the spirit of hesitant confidence, the details concerning Kenya's resources, plans and projections are submitted.

The historic and projected primary school enrollment in the maintained, assisted and unaided schools of Kenya is shown in Table XXVIII. Maintained schools are those operated fully at government expense. Aided schools are schools that are given grants in aid from the government for part of their support. Unaided schools are those that report to the government and accept government supervision but do not receive any financial support from the government.

The data shown in this table are historic for the 1964-67 years. Beyond that point they are projected. The increase in enrollment is based upon an increase of 6% per year into Standard I. Estimates in the higher Standards are based upon the anticipation that the enrollment in the future will pass through the system in about the same manner that it has in the past. The result of the projected increases would be that Kenya might increase the percentage of its school age children in school by 10 per cent - from an estimated 65% to 75%.

Recognition should be given the fact that the impact of the Harambee school movement is not reflected in the historic data. It may be

Table XXVIII

Estimated Kenya Primary School Enrollment, 1964-1974

(Maintained, Assisted and Unaided Schools)*

Year	Standard I	II	III	IV	V	VI	VII	VIII	Total
1964	180290	144786	139727	145004	134031	122603	114408	33870	1014719
1965	195733	165754	139285	135124	126428	122517	121269	36036	1042146
1966	193909	166110	152919	130282	120850	132714	146192	440	1043416
1967	228769	183634	165640	146912	124832	136848	147544		1133179
1968	250757	207755	178537	158899	132701	134247	146784		1209680
1969	266000	228000	200000	157000	138000	146000	148000		1283000
1970	282000	241000	219000	185000	138000	161000	159000		1385000
1971	299000	256000	232000	203000	161000	161000	175000		1487000
1972	317000	271000	246000	215000	177000	192000	175000		1593000
1973	336000	288000	261000	228000	188000	214000	208000		1723000
1974	356000	305000	277000	242000	199000	226000	228000		1833000

* In 1967, maintained schools constituted 97.59% of the primary school enrollment; assisted schools 1.58% and unaided schools .83%

Source: Enrollment data for 1964-1967 years from Kenya Ministry of Education, Annual Report, 1967
Enrollment data for 1968-1974 years from planning data obtained from secondary sources

reflected, to a degree, in the projected data. The existence of the enrollment of these schools represents an imponderable for estimating; but the fact should be borne in mind that estimates beyond 1969 could be thrown askew by a simple, popular legislative act. The consequences of such an act could be financially disastrous. Even with this unknown, this table provides the base data for the number of primary school teachers and teachers college tutors required.

The data shown in Table XXIX provide a description of the Kenya primary school teaching force in 1967. It should be noted that 96.3% of the primary school teaching staff were Kenya citizens. Thus, Kenyanization was largely in effect in these primary schools in 1967. It should be noted, also, that 70% of the teachers were rated as qualified and 30% unqualified; however, the level of qualification should be examined. From this point of view, the data reveal the fact that approximately three-fourths of the primary school teachers had only a primary school education, or at best, 2 years of secondary school and no Junior Secondary School Certificate. In light of any planning the Team could confirm, the prospects of changing these general proportions in the future are not good. Kenya, then, must depend upon staff of relatively low level of education to perform the important task of providing Kenya children with their basic education.

Using the enrollment estimates from Table XXVIII, the total number of primary school teachers required was calculated for presentation in Table XXX. The total number needed includes not only those required by the growth in school population but those required on account of attrition. Thus, Kenya must train from 3,700 to 5,100 primary school teachers per year from 1969 through 1974. With a task of this magnitude, the Team feels confident that Kenya cannot train the new primary school teachers required to a very high academic level, despite aspirations.

Table XXIX

Kenya Primary School Teachers By Qualifications and Citizenship, 1967

		Non Citizens			
Description	Kenya Citizens	On Local Terms	On Overseas Terms	Grand Total	Per Cent of Total
Professionally Qualified					
Graduate	7	46	27	80	.2
UK Min. Ed. Certificate	9	163	50	222	.6
S1	13	62	13	88	.2
P1	1070	546	68	1684	4.7
P2	3769	27	1	3797	10.6
P3	16013	17	1	16031	44.9
P4	2818	3		2821	7.9
Technical Instructor (All Grades)	138	3	3	144	.4
Any Other	142	30	11	183	.5
Sub-Total Qualified	23979	897	174	25050	70.2
Not Professionally Qualified					
Graduate	10	12	8	40	.1
Higher School Certificate	26	35	10	71	.2
Cambridge School Certificate	692	98	19	809	2.3
Kenya Primary Education	8373	9	2	8384	23.5
Other	1268	36	14	1318	3.7
Sub-Total Not Qualified	10369	200	53	10622	29.8
Total Qualified and Not Qualified	34348	1097	227	35672	
Per Cent of Total	96.3%	3.1%	.6%		

Note: S1 - School Certificate plus 3 years teacher training or Higher School Certificate plus one year teacher training

P1 - School Certificate plus 2 years teacher training

P2 - At least 2 years secondary, but no School Certificate, and 2 years teacher training

P3 - Kenya Certificate of Primary Education plus 2 years teacher training

P4 - Completed primary course, but no Certificate of Primary Education, plus 2 years teacher training

Source: Kenya Ministry of Education, Annual Report, 1967

Table XXX

Estimated Kenya Primary School Teacher Demand and Supply 1964-1974

Year	Enrollment Projected	Pupil Teacher Ratio	Teachers Required	Previous Year's Teaching Staff Less 4%	New Teachers a/c Growth	New Teachers a/c Attrition	Total New Teachers Required
1964	1014719	36	27828				
1965	1042146	32	30986				3158
1966	1043416	31	33522				2536
1967	1133179	32	35672				2240
1968	1209680	32	37802	34245	2391	1427	3818
1969	1283000	33	38878	36290	2222	1512	3734
1970	1385000	35	39571	37323	2915	1555	4470
1971	1487000	36	41305	37988	2833	1583	4416
1972	1593000	37	43054	39653	2865	1652	4517
1973	1723000	38	45342	41332	3421	1722	5143
1974	1833000	40	45825	43528	2750	1814	4384

Source: Enrollments from Table XXVIII
Teachers required 1964-1967 from Ministry of Education, Annual Report, 1967
Teachers required 1968-1974 from planning data obtained from secondary sources

Table XXXI shows the citizenship and academic level or grade of Kenya's teachers college tutors in 1967. Reliable statistical information on citizenship and academic level of the teachers college tutorial staff for subsequent years was not available but the opinions expressed by well-informed Kenyans indicated that the standards had not improved, and, perhaps had deteriorated somewhat. A concern was expressed that these standards might deteriorate significantly as a result of the demands of the Harambee school movement.

Thirty-six per cent of the tutorial staff in the colleges were Kenya citizens and the balance non-citizens. Of the Kenyan staff, 55 had completed educations at the Cambridge School Certificate level or higher. One out of five Kenyan tutors was a college graduate. The non-citizen staff was of considerable higher standard than the Kenyan.

In order to estimate the number of teachers college tutors required, the data from Table XXX were drawn upon to construct Table XXXII. This data shown in Table XXXII indicates a demand for teachers college tutors that fluctuates wildly from none required in each of two years to up to 179 in one year. No account was taken of attrition of tutors because no satisfying basis for predicting attrition could be established. Recalling that the data in Table XXXI indicated that 64% of the tutorial staff was non-citizen, about equally divided between those employed on local terms and those employed on overseas terms, and, recognizing the magnitude of the continuing demand, the Team believes that Kenya's primary teacher training program may be in a precarious position.

In order to produce the number of primary school teachers required, Teachers Colleges must maintain an appropriate enrollment. That enrollment is shown in Table XXIII. Paying attention to the output column alone, it can be seen that the Team's estimates indicate that the planning for

Table XXXI

Kenya Teacher Training College Tutors, 1967

	Kenya Citizens		Non-Citizens				
			Employed on Local Terms		Employed on Overseas Terms		
Description	Male	Female	Male	Female	Male	Female	Total
Graduate	20	9	38	32	54	30	183
U. K. Min. of Ed. Cert.	4	3	6	22	29	9	73
S1*	36	11	7	15	2	1	72
P1*	36	3	2	3	-	-	44
P2*	12	9	-	-	-	-	21
Technical Instructor	2	-	-	-	2	-	4
Other	4	1	5	1	8	1	20
Total	114	36	58	73	95	41	417

* See Table XXIX for interpretation of these classifications

Source: Ministry of Education, Annual Report, 1967, p. 56

Table XXXII

Kenya Primary Teacher Training College Tutors Required 1964-1974

	Enrollment* Projected	Teachers* Required	New Teachers* Required	Total Tutors Required	New Tutors Required
1964	1014719	27828		306	
1965	1042146	30986	3158	351	45
1966	1043416	33522	2536	372	21
1967	1133179	35672	2240	367	5
1968	1209680	37802	3818	546	179
1969	1283000	38878	3734	535	-11
1970	1385000	39571	4470	639	104
1971	1487000	41305	4416	631	-8
1972	1593000	43504	4517	645	14
1973	1723000	45342	5143	734	89
1974	1833000	45825	4384	627	

Note: Primary teacher training programs provide 2 years of teacher training; therefore the number of new teachers required must be doubled in order to derive the number of tutors required. In Kenya, the average number of students per teacher training tutor has varied somewhat but has remained approximately 14 students per teacher training tutor. Therefore, the ratio of 14:1 has been applied in estimating Kenya's requirements for teacher training tutors.

Source* Table XXX

Table XXXIII

Estimated Kenya Teacher Training College Enrollment, 1964-1974

	P1 Course			P2 Course			P3 Course			Output			Total
	1st Yr.	2nd Yr.	Total	1st Yr.	2nd Yr.	Total	1st Yr.	2nd Yr.	Total	P1	P2	P3	Output
1964	213	209	422	336	289	625	1877	1655	3532	209	289	1655	1843
1965	158	169	327	531	357	888	1848	1783	3631	169	357	1783	2309
1966	305	202	507	697	460	1157	1630	1767	3397	202	460	1767	2429
1967	393	300	693	973	684	1477	1344	1559	2903	300	684	1559	2543
1968	440	390	833	990	850	1840	1320	1325	2645	390	850	1325	2565
1969	450	430	880	1030	950	1980	1300	1250	2550	430	950	1250	2630
1970	470	460	930	1100	1012	2112	1270	1242	2512	460	1012	1242	2714
1971	770	464	1234	1240	1081	2321	1260	1127	2387	464	1081	1127	2672
1972	820	759	1579	1135	1219	2354	1300	1242	2542	759	1219	1342	3220
1973	940	805	1845	1430	1104	2534	1450	1288	2738	805	1104	1288	3197
1974	960	920	1880	1460	1403	2863	1470	1403	2873	920	1403	1403	3726

Note: The total output of teachers from the teacher training colleges for the 1970-1974 period have been extracted from proposed planning data. The number of inputs required to meet these have been interpolated by crude approximation.

primary school teacher production suggested that Kenya might not produce the number of primary school teachers it required trained to the level they desire. This gap can only imply that a larger number of probably lower standard teachers will be employed. The consequence of this fact leads the Team to expect a deterioration of the quality of the primary school program. The effect of this fact will be apparent later in the higher levels of the school program. If this predicted deterioration is to be prevented, the time to take action is now.

Table XXXIV shows the historic and estimated secondary school enrollment. Despite the fact that the number of Form 2 and Form 4 school leavers exceed the manpower requirements by 300%, based upon the 1967 Manpower Survey, the best information the Team could confirm was that an annual compounded intake of secondary school students of 6.6 per cent was likely to be proposed. Keeping in mind the large unknown numbers of Harambee secondary schools, and considering the relatively high cost of secondary school education, this continued large input into secondary education appears to the Team to be a planning judgment that creates problems of disastrous proportions for Kenya. The evidence available does not indicate that steps will be taken to prevent the problems.

An estimate of the number of additional secondary school teachers required to provide teaching service for the increased secondary school enrollment is shown in Table XXXV. The additional numbers required, attrition not taken into account, is from 173 to 260 per year. Comparing the data in Table XXX with that in Table XXXV, it should be pointed out that the problem of training new secondary school teachers is something less than one-twentieth the magnitude of the problem presented in the training of the new primary school teachers.

Table XXXIV

Estimated Kenya Secondary School Enrollment, 1964-1974

(Maintained and Assisted Schools)

Year	Form 1	Form 2	Form 3	Form 4	1-4 Total	Form 5	Form 6	5-6 Total	1-6 Total
1964	8956	7231	5515	4433		792	549		27476
1965	11529	8665	6140	5462		1087	693		33576
1966	12754	11798	8614	5849		1301	911		41227
1967	14067	13140	11505	8120		1578	1078		49488
1968	15169	14388	12899	11028	53484	1734	1328	3062	56546
1969	15930	14670	14200	11670	56470	2240	1510	3750	66220
1970	17730	15400	14560	13560	60850	2780	1900	4680	65530
1971	18330	16760	15290	13800	64180	3380	2360	5740	69920
1972	19420	17730	16640	14500	68300	4030	2870	6900	75200
1973	20430	18790	17600	15770	72590	4740	3420	8160	80750
1974	21530	19760	18650	16680	76620	5160	4020	9180	85800

Source: Enrollments for 1964-67 from Kenya Ministry of Education, Annual Report, 1967
Enrollments for 1968-74 from planning data obtained from secondary sources

Table XXXV

Estimate of Kenya Secondary Teachers Required to Teach Projected Enrollments

(Maintained and Assisted Schools Only)

	Secondary* Enrollment	Teachers Required*	Additional Teachers Required
1964	27476	1289	
1965	33576	1575	286
1966	41227	1933	358
1967	49488	2321	388
1968	56546	2651	330
1969	60220	2824	173
1970	65530	3077	253
1971	69920	3278	201
1972	75200	3526	248
1973	80750	3786	260
1974	85800	4023	237

* The number of teachers is determined by applying the ratio of 21.33:1. This ratio is in conformity with recent records.

The difference in magnitude of the primary versus secondary teacher training problem is less when the factor of attrition is applied as it is shown in Table XXXVI. When attrition is taken into account, the estimates show that Kenya will have to train up to 700 secondary school teachers per year. When attrition is taken into account, Kenya will have to train more than six times as many primary school as secondary school teachers.

Table XXXVII contains estimates by schools where the required number of secondary school teachers will be trained. The projected enrollment of Kenya Science Teachers College has not been included and could amount to as many as 100 teachers per year. This number could provide a cushion to take care of either a shortfall in enrollments in other teachers colleges or an increase in enrollments beyond those that have been predicted.

The data presented in Table XXXVIII describe the grade and citizenship of Kenya secondary school teachers. Over three-fourths of Kenya's secondary school students were taught by 1,068 non-citizens. To reduce this number of non-citizens, an increase in the Kenya secondary school teacher training program will be required. At this level, the cost per student teacher is very high and Kenya must make a hard value judgment about whether it wants to use its scarce resources to achieve its goal of Kenyanization.

Kenya's expenditures to achieve its educational goals at various levels are shown in Tables XXXIX and XL. Table XXXIX shows expenditures for the 1963/64 through 1968/69 period. The relatively low level of expenditures for primary school simply indicates that the Central Government didn't put very much of its money into primary education. Secondary school expenditures increased approximately 200 per cent, technical education about the same amount, teacher education about 100 per cent and higher education about the same percentage.

Table XXXVI

Total Kenya General Secondary School Teachers Requirements, 1964-1974

	Teachers Required*	New Teachers a/c Growth	New Teachers a/c Attrition**	Total New Teachers Required	Total New Teachers Produced In Kenya
1964	1289				97
1965	1575	286	52	338	103
1966	1933	358	63	421	240
1967	2321	388	74	462	246
1968	2651	330	93	423	320
1969	2824	173	106	279	417
1970	3077	253	113	366	510
1971	3278	201	123	324	510
1972	3526	248	132	380	640
1973	3786	260	141	401	670
1974	4023	237	152	389	700

* From Table XXXV

** Attrition rate calculated at 4%

Table XXXVII

Production of New Kenya Teachers for Secondary Schools* 1964-1974

Year	Kenyatta College	Kenya Science Teachers College	Egerton College	University Colleges	Total Production*
1964					97
1965					103
1966					240
1967					246
1968					320
1969	290	40	7	80	417
1970	310	50	40	110	510
1971	320	90	40	150	510
1972	330	120	40	150	640
1973	350	120	40	160	670
1974	370	130	40	160	700

* No breakdown of the location of the training site is readily available for the 1964-1968 years.

Source: Teacher output 1964-1967 - Ministry of Education _Annual Reports_, _1964_, _1965_, _1966_, _1967_.
Teacher output 1969-1974 - planning data obtained from secondary sources

Table XXXVIII

Citizenship and Qualifications of Kenya Secondary School Teachers 1964, 1966 and 1967

(Maintained and Assisted Schools Only)

	Kenya Citizens	Non-Citizens	Kenya Citizens	Non-Citizens	Kenya Citizens	Non-Citizens
Professionally Qualified						
Graduate	149	672	94	919	87	1106
S1	157	46	140	168	290	129
P1			208	28	90	25
Prin. & Tech. Master			3	6	2	2
Tech. Inst.	13	27	1	10	6	11
Asst. Tech. Inst.			3	3	8	1
Other	91	93	21	57	23	32
Total Qualified	410	838	470	1191	506	1306
Not Professionally Qualified						
Graduate	78	127	24	223	43	307
H.S.C.	59	68	49	38	83	38
C.S.C.	11	12	8	8	14	8
Other	13	23	10	21	6	9
Total Unqualified	161	230	91	290	146	362
Grand Total	571	1068	561	1481	652	1668
Per Cent Each Year	34.8%	65.2%	27.5%	72.5%	28.1%	71.9%

Note: Report data was not in a form that would permit the 1965 data to be included in this table.

Source: Ministry of Education, Annual Report, 1964, 1966, 1967

Table XXXIX

Kenya Central Government Recurrent Expenditures for Education 1963/1964-1968/1969

Sector	1963/64	1964/65	1965/66	1966/67	1967/68*	1968/69*
Administrative and General	227381	192012	316441	287279	353621	369680
Primary Education	1649491	276084	73002	58644	63540	3240000
Secondary Education	1120853	1395439	2105758	2747955	3301570	3781300
Technical Education	296815	366457	508818	524485	570500	610330
Teacher Education	595204	769076	833740	919268	1028550	1124440
Higher Education	611682	676699	743796	910799	1127515	1409500
Other	1464018	218697	273724	344235	361135	489440
Total	5965444	3885464	4855279	5792665	6806431	11024690

* Estimated Expenditures

Note: The 1964-1970 Kenya Development Plan data were prepared in such a manner that comparisons with actual expenditures were not possible.

Source: Ministry of Education, Annual Report, 1967, p. 86

With all of the unknowns involved, a few of which have been mentioned, Table XL shows the Team's estimate of expenditures of the Central Government during the 1969/70-1973/74 period. Table XLI, which should be considered with Tables XXXIX and XL, is included to show the basis upon which salary costs are calculated.

The only educational sector that is not self-explanatory is that for primary schools. The projected estimates are larger than the historic expenditures because the Team believes that all available information points to the probability that the Central Government is going to be forced to assume a larger share of the burden of primary education than it has in the past. The team believes that an extremely large increase in expenditures for higher education will be forced upon the government for a variety of reasons. The Team believes that the Kenya Government will be extremely hard pressed for funds for educational recurrent expenditures. This shortage is likely to be so great that the government will be forced to reduce some of its quality standards and to curtail some of its programs even though it might exercise a more firm control than it has in the past. There simply isn't going to be enough money to go around.

As concluding observations pertinent to the resources available and projected requirements, note should be taken of three impressions which evolved from the Team's consultations.

First, the Ministry of Education in each country is not viewed either by other ministries or by many leaders in education as being one of the more creative, dynamic ministries. Often their services are reacted to disparagingly by many of the people in the educational organization they administer and serve. They are not counted upon for leadership as they should be.

Table XL

Team Estimate of Kenya Central Government Expenditures in Education 1968/69-1973/74

(In Kenya Pounds)

(All Schools)

Sector	1969/70	1970/71	1971/72	1972/73	1973/74
Administrative and General	464146	543016	635329	744505	871107
Primary Education	1385000	1487000	1593000	1723000	1833000
Secondary Education	4402699	5026480	5769075	6646129	7556606
Technical/Vocational Education	653053	698767	747681	800019	856020
Teacher Education	1143601	1193795	1257266	1310384	1324343
Higher Education	1593000	1742989	2155380	3295963	4075788
Other Services	611800	764750	955938	1169923	1462404
Total	10253299	11456797	13113669	15689923	18979268

Table XLI

Comparison of Previous and Proposed Pay Schedules for Kenya Teachers

	Previous Pay Scale* (Kenya £ Per Year)	Pay Scale Proposed 1967* (Kenya £ Per Year)
Unqualified Teachers		
Completed Primary only	84	90
Certificate of Primary Education	96	103.4
Certificate Junior Secondary Education (Form 2)	108	117
Cambridge School Certificate (Form 4)	240	252
Higher School Certificate 1 Principal Pass (Form 6)	300	330
Higher School Certificate 2 Principal Passes (Form 6)	330	366
Qualified Teachers		
P4 - Primary Education but no certificate plus 2 years T. T.	120-180	135-231
P3 - Certificate Primary Education plus 2 years teacher training	162-264	180-360
P2 - 2 years secondary, no certificate, plus 2 years T. T.	240-465	264-480
P1 - Cambridge School Certificate plus 2 years teacher training	348-726	378-756
S1 - Cambridge School Certificate plus 3 years teacher training, or Higher School Certificate plus 2 years teacher training	528-1110	684-1110
Graduate Teacher	804-1710	810-1710

* Plus certain additional allowances for headmasters and deputy headmasters

Source: Ministry of Education, Annual Report, 1967, p. 11

This condition, if the Team's interpretation is correct, is unfortunate because, generally, the staff in the Ministry of Education is a relatively young staff. These civil servants will probably be influencing education for a long time and their influence should be forceful.

Second, the Team saw many examples of men with administrative responsibilities in both the Ministry and in teachers colleges who had good ideas but didn't know how to put them to work. The need for the development of administrative leadership skills has been discussed earlier in this report; but because of its importance, it needs to be re-emphasized. One way of getting more educational product out of very limited resources is to concentrate upon developing the leadership skills of the staff and improving its administrative capabilities.

The Team recognizes the need for a delicate approach to this problem because of traditional thinking and because identification and concentration upon it constitutes a threat to every incumbent. Nonetheless, a serious need of most East African ministries is to overcome the assumption that if an order is issued or a plan is prepared, the results are, therefore, accomplished. Sensitively provided assistance in teaching and demonstrating the processes by which a goal plan is broken down into component action projects, progress is made, re-direction is given and momentum is maintained is an important need. Fulfilling this need is an important assistance opportunity. Improving leadership and administration can contribute significantly to better use of very limited resources.

The third dominant impression made upon the Team is that the teacher, except in the university colleges in East African countries, does not occupy a position of very high status. Students making choices for further educational training give the opportunity for teacher training as a last choice. The large proportion of the teaching force has not been educated to a very high level. Many are not certain that they will be paid. More are not inspired by their leadership either in a specific school or by their Central Government leaders. The very system of classification and grading creates insurmountable blocks for upward mobility and discourages many from self-improvement efforts. The consequence of the combination of these elements is that teachers frequently do not consider themselves very important people. Society in general, unfortunately, does little to change the teacher's view of himself or his position in society.

Raising the status of teachers is an important task in the years ahead. Opportunities for further training are important in the effort. The prospects of improving pay scales are not good but that prospect need not block efforts. More important, though, is concentration upon the task of developing a cadre of teachers who can be known and commended for what they know and can do. Additional training together with emphasis upon and appreciation of the positive elements of what teachers know and can do could make a very great difference in teachers productivity. In money terms the cost of improving the status of the teacher can be small; but in terms of their potential contribution to society the benefits can be great. The Team believes that the need is imperative and that the benefits are well worth the cost.

Section 7

PRIORITIES IN TEACHER EDUCATION

In previous sections of this report many comments have been made about the status and trends in teacher education and related aspects of education in Tanzania, Uganda and Kenya. Also suggestions were given as to how some of the problems might be resolved and how AID might be of assistance. From all of these the Team has designated the following areas of need as the most crucial for the improvement in the three countries.

1. Training of Teachers of Tutors for Primary Teachers Colleges

   This area has been given first priority because primary education affects so many people. Approximately 68% of the children in school in the three countries are in primary schools. Also, teachers of tutors work at a crucial point in the educational system for they influence the tutors who influence teachers, who influence students, and students by their behavior determine the spirit and productivity of the society.

   The Team proposes that a "primary teacher education option" be added to the programs at the university colleges and the secondary teachers training colleges in each country. The academic programs of these institutions are at the level appropriate for primary teachers college tutors; and the facilities are adequate for the new program.

   It is suggested that AID train, at the Master's degree level in the U.S.A., two Africans from each country in primary education to teach and direct the professional education programs for the training of primary teachers college tutors at the university colleges, secondary teachers training colleges of each country and the Institutes of Education in Uganda and Kenya. Replacements for persons in training and support for necessary facility remodelling and construction are also recommended.

2. Training of Secondary Teachers College Tutors

This area is also important because of the tutor's influential role in education. The secondary teacher training institutions of the three countries are staffed largely by expatriates. The Team feels that these should be replaced by qualified Africans as soon as possible. Unfortunately, there is now no university in East Africa which offers advanced degree programs. Tutors in these colleges will, with the "primary education option" operating, also teach academic courses for those preparing to be tutors in primary teachers colleges. Therefore, assistance in improving the quality of these staffs will affect both primary and secondary education.

It is suggested that AID train at the Master's degree level in the U.S.A. six Africans from each country. Each participant is to return to the secondary teachers college in his country as a tutor in a particular subject field. Replacements for persons in training is also recommended.

3. Curriculum Development, Instructional Materials and Research

These three areas have been placed together because they are interrelated. Effective curriculum development depends on a research base. Also, instructional materials need to be relevant to the syllabuses and courses of study which have been developed. The Team feels that in these three countries texts and teachers' guides are particularly important because teachers typically have had little training and receive little supervision. However, if students are to develop skills of problem solving and independent thinking they need many materials. But the development of instructional materials will have little, if any, value if they are not readily available to students. Because of technical and financial limitations and some political considerations, schools suffer from a dearth of materials. Assistance in these areas is needed and will make considerable difference in the values received from educational expenditures.

It is suggested that AID provide a team of specialists to work in the Curriculum Development Departments of the Institutes of Education particularly in Kenya but also in Uganda and Tanzania if it becomes feasible. It is suggested that AID provide specialists for four years in the areas of teaching of social studies, coordination of curriculum development, educational publications, child development research and educational evaluation and testing. Provision of these specialists is conditioned by the agreement of the Government of Kenya to provide an equal number of participants to replace the specialists and also to provide adequate local support personnel at the Institute of Education.

4. Development of Planning and Leadership Capability

The improvements needed and support suggested will be relatively unproductive if persons in key positions are not effective. These key persons are officers in the ministries of education, principals of teacher training colleges, and headmasters of schools. Below are listed several conditions that should be met before the recommended assistance is agreed to. These conditions apply particularly to leaders in the "education establishment".

No specific leadership project is proposed by the Team, however the Team suggests that AID officials in the three countries explore the possibility of assistance in the planning and leadership areas. Three possibilities for assistance occurred to the Team. One is the provision of a "counselor or assistant" to administrators. This might be coupled with short or long term training in the U.S.A. for the local administrator. Also specialists from the U.S.A. might conduct seminars and workshops in these countries for administrators.

Prior Conditions for Assistance

1. Officials in the Ministries of Education and other government officials, particularly in Uganda and Kenya, need to realistically face fiscal and human resource limitations in their countries and to make hard decisions and plan in terms of those realities.
2. Also, in those two countries, officials should more clearly specify their goals for education. The design of educational programs and their implementation should closely follow those goals.
3. Certain economies and efficiencies in the operation of the school system should be initiated. These include more effective facility utilization, enforcement of reasonable work loads for

teachers and others in the school systems, and increased personnel stabilization by the processes of bonding and position tenure.

Appendix A

AACTE TEAM TRAVEL ITINERARY IN EAST AFRICA
1969

August 25 thru September 5 - Kenya Study

September 6 - Travel to Uganda

September 7 thru September 19 - Uganda Study

September 20 - Travel to Tanzania

September 21 thru October 3 - Tanzania Study

October 4 - Travel to Nairobi

October 6 thru October 11 - Preparation of Report

October 12 - Travel to Dar es Salaam

October 13 thru October 15 - University of East Africa Teacher Education Conference

October 16 - Presentation and Discussion of Report with USAID/EA Officials

October 17 - Travel to Nairobi

October 17 thru October 29 - Complete the Report

October 29 - Depart

Appendix B

AACTE TEAM ITINERARY IN U.S.A.
1969

Date	Place	Persons
August 18-23	Washington	Dr. Edward C. Pomeroy, Executive Secretary, American Association of Colleges for Teacher Education
		Dr. Frank Klassen, Associate Executive Secretary, American Association of Colleges for Teacher Education
		Dr. Edwin Trethaway, Chief, ESA/Afr/ID., AID/W
		Mr. Marshall Fields, Assistant, ESA/Afr/ID., AID/W
		Mr. Jerry Knoll, Director, ESA, AID/W
		Mr. Ed Lofthouse, ESA Regional Desk Officer AID/W
		Dr. Fred E. Harris, T.E.E.A. Evaluation Project
		Dr. Don Edwards, Asst. Ed. Officer, USAID/Uganda
	New York	Dr. Karl W. Bigelow, Director, Afro-Anglo-American Program in Teacher Education and Professor of Education, Teachers College Columbia University

Appendix C

AACTE TEAM ITINERARY IN KENYA
1969

Date	Place	Persons
August 25	Nairobi	Mr. Thomas McDonough, Education Officer, East African Office for Regional Administration, USAID
		Mr. George Corinaldi, Education Officer, USAID/Kenya
August 26	Nairobi	Mr. Harold Snell, Director, USAID/Kenya
		Mr. James Greene, Acting Director, USAID/EAORA
		Mr. Thomas McDonough, Education Officer, USAID/EAORA
		Mr. George Corinaldi, Education Officer, USAID/Kenya
		Mr. Melrien A. McGaw, Representative, International Institute of Education
		Mr. Richard Abrams, Executive Secretary, Regional Council for Education
August 27	Nairobi	Mr. F. C. A. Cammaerts, Professor, Education, University College, Kenya
August 28	Nairobi	Mr. Peter Lijembe, Secretary, Kenya Institute of Education
		Mr. Barrie Vogeli, Mathematics Specialist, Kenya Institute of Education (T.E.E.A.)
		Mr. Jackson Kingali, Deputy Secretary, Kenya Institute of Education
		Mr. Z. Mwangi, Chairman, Teachers Service Commission
		Mr. J. N. G. Muhuro, Secretary, Teachers Service Commission
		Mr. Peter Lubulellah, Executive Secretary, Kenya National Union of Teachers
August 29	Nairobi	Mr. E. V. Winans, Advisor, Planning Section, Ministry of Finance (American)
		Dr. D. Davies, Advisor, Planning Section, Ministry of Finance (American)
		Mr. Olle Osterling, Principal, Kenya Science Teachers College
		Dr. Bengt-Olof Marinder, Vice Principal, Kenya Science Teachers College

AACTE TEAM ITINERARY IN KENYA (Continued)

Date	Place	Persons
August 30	Nairobi	Mr. Dan Saint Rossy, Deputy Director, UNESCO Field Service Office for Africa Mr. M. W. Pritchard, Field Technical Advisor, UNESCO Project, Department of Education, University College, Kenya
September 1	Nairobi	Mr. E. V. Winans, Advisor, Planning Section, Ministry of Finance (American) Dr. D. Davies, Advisor, Planning Section, Ministry of Finance (American)
		Mr. Barrie Vogeli, Mathematics Specialist, Kenya Institute of Education (T.E.E.A.) Mr. C. H. Logie, Inservice Education Project Team (Canadian International Development Agency) Mr. R. J. Hemphill, Language Specialist, Kenya Institute of Education (American)
September 2	Nairobi	Mr. E. V. Winans, Advisor, Planning Section, Ministry of Finance (American) Dr. D. Davies, Advisor, Planning Section, Ministry of Finance (American)
	Nyeri Safari	Mr. P. M. Kareithi, Inspectorate, Ministry of Education
	Karitina	Mr. G. N. Gighinji, Chairman, Board of Governors, Harambe School
	Nyeri	Mr. Henry Aboya, Head, Inspectorate, Central Province
	Karitina	Mr. J. Nambo, Principal, Kogumo Teachers College Miss Martin, Librarian-Tutor (Canadian)
September 3	Nairobi	Mr. Kyale Mwendwa, Chief Education Officer, Ministry of Education Mr. Jackson Kingali, Deputy Secretary, Kenya Institute of Education Mr. Y. Komora, Planning Division, Ministry of Education
	Machakos	Mr. John King'ori, Principal, Machakos Teachers College Mrs. Helen Wallingford, Tutor, Machakos Teachers College (T.E.E.A.)
	Nairobi	Dr. Arthur Krival, Institute of Adult Studies, Radio/Correspondence Education Unit (University of Wisconsin Contract), University College Nairobi
		Mr. Peter Kinyanjui, Lecturer, Institute of Adult Studies, University College Nairobi

AACTE TEAM ITINERARY IN KENYA (Continued)

Date	Place	Persons
September 4	Nairobi	Mr. E. Evans, Vice Principal, Kenyatta College
		Mr. Njage, Administrative Secretary, Kenyatta College
		Mr. J. N. G. Muhuro, Secretary, Teachers Service Commission
		Miss Ellen Rohn, Tutor, Siriba Teachers College (T.E.E.A.)
September 5	Thogoto	Mr. James K. Wainaina, Principal, Thogoto Teachers College
	Nairobi	Dr. J. G. Kiano, Minister of Education
		Mr. F. C. A. Cammaerts, Professor, Education, University College, Kenya
		Mr. Y. Komora, Planning Division, Ministry of Education
		Mr. Thomas Hobson, British Ministry of Overseas Development
		Miss Diane Fields, Education Officer, Peace Corps
		Mr. A. N. Getao, Principal, Kenya Polytechnic

Appendix D

AACTE TEAM ITINERARY IN UGANDA
1969

Date	Place	Persons
September 8	Kampala	Mr. A. Wandira, Dean, Education Faculty, Makerere University College
	Kampala	Dr. Harold Adams, Education Officer, USAID/Uganda
September 9	Kampala	Mr. Will Muller, Director, USAID/Uganda Dr. Harold Adams, Education Officer, USAID/Uganda
		Mr. Rex Ottley, Agricultural Officer, USAID/Uganda
		Mr. Givens Thornton, Deputy Director, Peace Corps
September 10	Kampala	Dr. Carl Manone, Chief of Party, T.C.C.U., T.E.E.A. Mr. Joseph M. Durham, Administrative Associate, T.C.C.U., T.E.E.A. Mr. LeRoy Smith, Operations Officer, T.C.C.U., T.E.E.A. Mr. Edward Rubin, Instructional Materials Specialist, T.C.C.U., T.E.E.A.
	Kyambogo	Mr. F. R. Poskitt, Principal, National Teacher Training College Mr. Gene Ashby, Warden (Dean of Men), National Teacher Training College (T.E.E.A.)
September 11	Kampala	Mr. E. K. K. Sempebwa, Chief Education Officer, Ministry of Education Mr. J. Aryada, Chief Inspector of Schools, Ministry of Education Mr. P. S. Achoye, Senior Education Officer (Teacher Training) Ministry of Education
September 12	Kampala	Dr. Robert Stollberg, Science Education Specialist, Institute of Education Dr. Donald Martin, Teacher Education Specialist, Institute of Education
		Dr. Jess Brown, Primary Science Education Specialist, UNICEF Project, Makerere University College

AACTE TEAM ITINERARY IN UGANDA (Continued)

Date	Place	Persons
September 12	Kampala	Mr. Senteza Kajubi, Director, Institute of Education Mr. A. Kajubi, Director, Continuing Education Center
September 15	Mbale Area	Mr. W. A. Opit, Acting Principal, Bishop Kitching Teacher Training College Mr. Harold Whaling, Science Tutor, Bishop Kitching Teachers Training College (T.E.E.A.)
		Father Whalen, Principal, St. Aloysius Teacher Training College
		Sister Martha, Acting Principal, St. Mary's Teacher Training College Miss Barbara Ellery, Tutor, St. Mary's Teacher Training College (T.E.E.A.) Mrs. Johnnie Brooks, Tutor, St. Mary's Teacher Training College (T.E.E.A.)
		Mr. Paul M. Ekwong, General visit with Principal and three other tutors at Bulawasi Teacher Training College just opened in buildings of a former seminary.
September 16	Mbole Area	Mr. M. Kilimu, Acting Principal, Kabwangasi Teacher Training College
		Sister Magna, Principal, St. Ursula's Teachers Training College Mr. Robert Branch, Science Tutor, St. Ursula's Teacher Training College Mrs. Geraldine Branch, Music Tutor and Librarian, St. Ursula's Teacher Training College
	Kampala Mbale Road	Mr. W. W. Kunya, Principal, Bishop Willin Teacher Training College Mr. Teunis Paarlberg, Tutor, Bishop Willin Teacher Training College Mr. Banning Fenton, Tutor, Bishop Willin Teacher Training College
September 17	Kampala	Mr. Basil Kuwanuki, Secretary, East Africa Examinations Council Mr. W. Wachwega, Secretary, Ministry of Finance

AACTE TEAM ITINERARY IN UGANDA (Continued)

Date	Place	Persons
September 18	Kampala	Mr. Y K. Lula Lulle,Principal, Makerere University College
September 19	Kampala	Mr. Brian Jones, Director, UNICEF/Uganda
September 20	Kampala	Mr. Svend Hoelgard, Deputy Director and Program Officer, UNICEF for Eastern Africa

Appendix E

AACTE TEAM ITINERARY IN TANZANIA
1969

Date	Place	Persons
September 22	Dar es Salaam	Mr. Charles Nelson, Director, USAID/Tanzania Dr. Willie Whitten, Education Officer, USAID/Tanzania
		Mr. J. D. Mganga, Director, National Education, Ministry of Education Mr. E. K. Meena, Director, Teacher Education, Ministry of Education
		Dr. Hugh LaBounty, Vice President, California Polytechnic, Pamona, California and Advisor to USAID/Tanzania on Technical Education Mr. Melvin Belcher, Professor, California Polytechnic, Pamona, California and Advisor to USAID/Tanzania on Technical Education Mr. E. Schoenwetter, Liason Officer, Electrical Engineering, California Polytechnic Project in Technical Education at the Technical College, Dar es Salaam
September 23	Dar es Salaam	Mr. George Kibodya, Acting Director, Institute of Education
		Mr. J. E. Phythian, Math Faculty and Local Representative for Education Development Center
		Mr. Robert Thomas, Manpower Advisor, Ministry of Economic Affairs and Development Planning (American)
		Mr. Jesse D. Mullins, Tutor, Dar es Salaam College of National Education (T.E.E.A.) Mr. G. A. Kay, Tutor, Dar es Salaam College of National Education (T.E.E.A.)
		Dr. Oleen Hess, Agriculture Officer, USAID/Tanzania
September 24	Dar es Salaam	Mr. C. L. S. Omari, Principal, Dar es Salaam Technical College
		Mr. Sefania Tungunie, Principal, Dar es Salaam College of National Education Mr. John Lawuo, Assistant Principal, Dar es Salaam College of National Education

AACTE TEAM ITINERARY IN TANZANIA (Continued)

Date	Place	Persons
September 25	Morogoro	Father Franken, Principal, Morogoro National College of Education Mr. Peter Mtende, Tutor, Morogoro National College of Education Dr. Eugene Godfreson, Education Development Center Primary Science, Education Tutor and Educational Research, Institute of Education Mr. Fred Holmes, USAID/T Agriculture Education Advisor Mr. D. S. Mhando, Senior Education Officer, Teacher Education, Ministry of Education
September 26	Korogwe	Mr. Y. Mganga, Principal, Korogwe National College of Education Mr. Warren D. Brinker, Tutor, Korogwe National College of Education (T.E.E.A.)
September 27	Marangu	Mr. Lawa Swai, Principal, Marangu National College of Education Mr. David Semkiwa, Vice Principal and Tutor, Marang National College of Education Mr. G. Darrell McCleod, Tutor, Marangu National College of Education (T.E.E.A.) Mr. Henry Hector, Tutor, Marangu National College of Education Mr. John Schober, Tutor, Marangu National College of Education Dr. James Hense, Tutor, Marangu National College of Education
September 28	Dar es Salaam	Mr. F. I. Ajumobogia, UNESCO Chief-of-Mission for Tanzania and Uganda Mr. Donald Wyatt, Director, African-American Institute
September 30	Dar es Salaam	Mr. Morombela, Director Curriculum Development and Examinations, Ministry of Education Mr. E. K. Meena, Director, Teacher Education, Ministry of Education Mr. Roger Carter, Planning Division, Ministry of Education (British)

AACTE TEAM ITINERARY IN TANZANIA (Continued)

Date	Place	Persons
October 1	Dar es Salaam	Mr. J. Kinunda, Assistant Director, Planning Division, Ministry of Education
		Mr. Don Schutte, Director Curriculum Department, Institute of Education (American)
		Mr. Berwarqo Bakula, Director, Unified Teacher Services, Ministry of Education
		Mr. E. K. Meena, Director, Teacher Education, Ministry of Education